

**The roles of the public, private and civic
sectors in adventure tourism in the
Nanda Devi Biosphere Reserve:
Garhwal Himalaya, India**

By

Kristin Kent

A thesis to be submitted to the Faculty of Graduate Studies in
partial fulfillment of the requirements for the degree of

Master of Natural Resources Management

Natural Resources Institute
University of Manitoba
Winnipeg, Manitoba

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ABSTRACT

Adventure tourism has been identified as one of the fastest growing segments of tourism world-over, but there is little documentation of the factors that lead to successful and sustainable adventure tourism programs. Usually, the long term success of a sustainable tourism program depends on the involvement of all concerned stakeholders. It requires the various tiers of government, tourism agencies, private sector organizations, and communities to clearly define their roles and work towards partnerships that reinforce the benefits of tourism development. Therefore, this study describes the roles of the public, private, and civic sectors in adventure tourism development in the Nanda Devi Biosphere Reserve (NDBR), Uttarakhand, India.

Relying on methods drawn from Participatory Rural Appraisal (PRA) such as semi-structured interviews, mapping exercises, transect walks, and participant observation, the study explored the following objectives: 1) To establish the current extent of adventure tourism and considerations for the future of adventure tourism activities in the NDBR; 2) to determine the current proposed and potential roles of the public, private and civic sectors in adventure tourism development; 3) to identify, in particular, the role to local people in adventure tourism development; 4) to understand how the location of adventure tourism activities are determined; and 5) to consider the role of environmental assessment in proposed adventure tourism development.

Adventure activities in the Niti and Bhyundar Valleys were considered in the study, providing insight into the nature of community participation in two geographically and culturally comparable places.

The study indicates that adventure tourism is still in the early phases of development, and is viewed by the respondents as having great potential for development in the area. Activities are being closely monitored and controlled by the state Forest Department, who aside from being identified as the lead agency in terms of development, claims authority over the area under various pieces of legislation. The other government body, Uttarakhand Tourism, plays only a limited role in the study area, and has focused much of its efforts in other parts of the state, or on other tourism niches such as religious tourism. In terms of the private sector, tour operators have the greatest level of involvement, although their activities are largely influenced by the regulations set by the Forest Department. Such is also the case of the civic sector, whose participation in adventure tourism development activities has been largely influenced by the authority of the Forest Department.

The study suggests that while efforts are being taken to develop regulations and programs to minimize potential adverse impacts and ensure the equitable distribution of benefits associated with tourism development, what is lacking is a coordinated approach to the development of adventure tourism in the Nanda Devi Biosphere Reserve. Greater efforts must be made towards the establishment of partnerships among the various players in the industry to reinforce the benefits of adventure tourism development. This will require the Forest Department to increase its reliance on the expertise that is currently held by various stakeholders, such as the tour operators, NGOs, and Uttarakhand Tourism. Additionally, efforts must be taken to improve civic sector involvement so that the communities residing in the NDBR have the ability to influence the impacts of adventure tourism in their environs.

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Table of contents

Abstract	iv
Acknowledgements	vi
List of figures	3
List of tables.....	3
CHAPTER 1. INTRODUCTION	5
1.1 Background	5
1.2 Context	6
1.3 Need for tourism research.....	7
1.4 Purpose statement	9
1.5 Objectives.....	9
1.6 Research design.....	10
1.7 Organization.....	11
CHAPTER 2. ADVENTURE TOURISM, SUSTAINABILITY & PLANNING	12
2.1 Tourism and India	12
2.2 Defining adventure tourism	13
2.3 Sustainable tourism.....	19
2.3.1 Environmental impacts	22
2.3.2 Socio-cultural impacts.....	23
2.3.3 Economic impacts.....	24
2.3.4 Sustainability and ecotourism.....	26
2.3.5 Sustainable tourism and mountain environments	27
2.4 Tourism planning and development	28
2.4.1 Environmental assessment (EA) for tourism planning	32
2.4.2 Public participation.....	36
2.4.3 Linking planning and participation.....	38
2.5 A snapshot of tourism in Uttarakhand	39
2.5.1 The Nanda Devi Biosphere Reserve	41
2.6 Chapter summary	43
CHAPTER 3. RESEARCH DESIGN	44
3.1 Introduction.....	44
3.2 The qualitative paradigm	45
3.3 Case study approach.....	45
3.3.1 Valley of Flowers.....	47
3.3.2 Dharasi Pass	49
3.3.3 Khakbusindi	52
3.3.4 High-altitude cycling.....	53
3.4 Rapid Rural Appraisal and Participatory Rural Appraisal.....	53
3.5 Research methods	55
3.5.1 Semi-structured interviews	56
3.5.2 Mapping	60
3.5.3 Transect walks.....	60
3.5.4 Participant observation.....	61
3.5.5 Review of secondary data sources	63
3.6 Threats to validity and reliability.....	63

3.6.1 Use of a translator	63
3.6.2 Public nature of the research.....	64
3.7 Data analysis	65
3.8 Reflections on the research process	68
CHAPTER 4. ADVENTURE TOURISM IN THE NANDA DEVI BIOSPHERE	
RESERVE.....	70
4.1 Introduction.....	70
4.2 Adventure tourism in the Nanda Devi Biosphere Reserve	70
4.2.1 Activities available.....	71
4.3 Determining where activities take place	73
4.3.1 The legislative framework	74
4.4 Public, private, and civic sector involvement	78
4.4.1 The public sector	78
4.4.1.1 The Forest Department	78
4.4.1.2 Uttaranchal Tourism	84
4.4.2 The private sector.....	87
4.4.2.1 Tour operators.....	87
4.4.2.2 Other private enterprises	90
4.4.2.3 NGOs	91
4.4.2.4 The Indian Mountaineering Federation	93
4.4.3 The civic sector	94
4.4.3.1 The Valley of Flowers	95
4.4.3.2 The Dharasi Pass	98
4.4.3.3 The roles of the communities.....	101
4.4.4 Evaluating current civic sector participation	105
4.4.4.1 Participation in terms of Arnstein’s ladder	107
4.4.4.2 Participation in terms of IIED’s typology of participation.....	109
4.4.4.3 Participation in terms of Gibson’s principles.....	112
4.4.4.4 A summary of civic participation	113
4.5 A summary of roles.....	114
4.6 Describing the current state of adventure tourism	119
CHAPTER 5. CONSIDERATIONS FOR FUTURE ADVENTURE TOURISM IN THE	
NANDA DEVI BIOSPHERE RESERVE	
5.1 Introduction.....	122
5.2 Considerations for the future	122
5.3 Addressing the considerations	130
5.3.1 Proposed roles for the public sector	131
5.3.1.1 Proposed roles for the Forest Department	131
5.3.1.2 Proposed roles for Uttaranchal Tourism.....	136
5.3.2 Proposed roles for the private sector.....	137
5.3.2.1 Proposed roles for the tour operators	137
5.3.2.2 Proposed roles for the NGOs	138
5.3.3 Proposed roles for the civic sector	138
5.3.3.1 The Valley of Flowers	139
5.3.3.2 Dharasi Pass	140
5.4 Decision-making in the future.....	141

5.5 A summary of proposed roles	147
CHAPTER 6. LINKING TODAY WITH TOMORROW: RECOMMENDATIONS FOR THE PUBLIC, PRIVATE, & CIVIC SECTORS	152
6.1 Introduction.....	152
6.2 Revisiting the roles	153
6.2.1 A focus on the civic sector role.....	159
6.3 Adventure tourism and sustainability	161
6.3.1 Involving the stakeholders in planning and decision-making.....	163
6.3.2 Planning for sustainability on a larger scale	168
6.3.3 The basic destination requirements and sustainability.....	170
6.4 Concluding remarks	170
REFERENCES	172
APPENDIX A.....	183
APPENDIX B.....	185
APPENDIX C	187
APPENDIX D.....	189
APPENDIX F.....	192
APPENDIX G.....	194
APPENDIX H.....	196

List of figures

Figure 1. District map of Uttaranchal (Thebharat, 2003)	6
Figure 2 Components of adventure tourism (adapted from Swarbrooke et.al., 2003).....	17
Figure 3 Revised psychographic personality type (Plog, 2001).	20
Figure 4 Map of the Valley of Flowers (Road map – Adventure Trekking Ltd., 2004)...	97
Figure 5 A map of the Dharasi Pass and surrounding area (GMVN, 2004).	99
Figure 6 The web of current relationships among the players	116
Figure 7 The potential web of relationships with the addition of new roles in adventure tourism	149
Figure 8 A model of CBEA for the implementation of new activities or routes in the NDBR.....	164

List of tables

Table 1 Classification of adventure pursuits	16
Table 2 Environmental impacts of tourism	23
Table 3 Socio-cultural impacts of tourism.	24
Table 4 Economic impacts of tourism.	25
Table 5 Major characteristics of types of impact assessment studies	33
Table 6 Arrivals at Hemkund Sahib and Valley of Flowers.	49
Table 7 The RRA-PRA continuum	54
Table 8 Breakdown of respondents.....	58
Table 9 Services available to tourists.....	72
Table 10 A summary of the roles of the Forest Department.	80

Table 11 A summary of the roles of the tour operators	88
Table 12 A summary of the roles of the civic sector.	102
Table 13 A summary of the roles of the public, private and civic sectors.....	115
Table 14 A summary of considerations identified for future adventure tourism development.	123
Table 16 A summary of current and proposed roles of the public, private and civic sectors	148
Table 17 Potential involvement for the players in various roles	154
Table 18 Examples of sustainability indicators	169

CHAPTER 1. INTRODUCTION

1.1 Background

In many places around the world where unique lifestyles and settings are threatened, people in various sectors are considering and using tourism as the sustainable industry of choice (Johnston & Edwards, 1994). Tourism is considered as one of the fastest growing industries world over (WTO, 2000a). Within the industry, adventure tourism has been identified as one of the fastest growing segments, with the number of operators and tourists increasing world wide (Adventure Travel Society, 2002; Dhurva, 2003). Within the Himalaya Mountain Range, on the northern boundary of India, is the newly formed state of Uttaranchal (Figure 1). The region has been identified as an area with great tourism potential, with adventure tourism at the leading edge of development (Government of Uttaranchal, 2003; Kala, 2000; Sinclair & Singh, 2003). “The enchanting geographical landscape and range of ecosystems decorated with astonishing variety of flora and fauna leave a lasting impression on a tourist in Uttaranchal” (Rawat & Sharma, 2003, pp. 321).

With tourists’ interest and arrivals to destinations in the area rising, Uttaranchal is now faced with the classic dilemma of controlling tourism development so that it does not surpass the ability of the region to withstand change (Butler, 2002). Uttaranchal is facing intense development pressure and there is a desire from government officials for “creative partnerships and institutional arrangements that permit the private and civic sectors to play a greater role in policy development and implementation” (Sinclair & Singh, 2003, pp. 4). The area is highly suitable for study as mountain environments are

particularly susceptible to degradation from resource use and development (Berkes & Gardner, 1997). Ultimately, the long term success of any sustainable tourism program, adventure based or otherwise, “will depend on its success in involving all concerned: tourists, tourism industry, host population, and the governments” (Batta, 2000, pp.87).



Figure 1. District map of Uttarakhand (Thebharat, 2003)

1.2 Context

The study took place in the Chamoli District of the newly formed state of Uttarakhand. Established on the 9th of November, 2000, Uttarakhand is the 27th state of India, and was carved out of the northern region of Uttar Pradesh. Bordering with Uttar Pradesh in the south, Himachal Pradesh in the north-west, and sharing international borders with China (Tibet) and Nepal, the total area of the state is 53,485km², the majority of are considered as hilly or mountainous. Described as one of the most beautiful and enchanting regions of northern India, Uttarakhand is also known as *Dev*

Bhumi, or the Land of the Gods. It is host to numerous pilgrimage sites, as well as the starting point of numerous sacred rivers, including the most holy river, the Ganga. With the Himalayan range dominating the northern landscape, the state is divided into the Kumaon region in the east, and the Garhwal region to the west.

The Chamoli District is home to the Nanda Devi Biosphere Reserve (NDBR). Established in 1988 as India's second biosphere reserve, the NDBR was formally recognized by UNESCO in 2004. According to UNESCO (2005), biosphere reserves are areas that are internationally recognized, but remain under the jurisdiction of the states where they are located. They are intended to serve three basic functions, which are mutually reinforcing, namely functions associated with conservation, development, and logistics (UNESCO, 2005). The NDBR boasts a "spectacular and unmatched opportunity for trekkers and mountaineers" (Nature Notes, 2004, pp.4), not to mention great potential for other adventure activities.

1.3 Need for tourism research

The study of tourism and its impacts is still in its formative years, and the complexity of the subject area has left gaps in the body of knowledge (Hunter & Green, 1995). A great deal of recent research on tourism in developing countries has focused on the development of sustainable tourism (Aronsson, 2000; Weaver, 1998). When considering sustainability, there seems to be a push at various levels, but especially by governments, towards the use of ecotourism. At the most basic level, ecotourism is defined as "responsible travel to natural areas which conserves the environment and improves the welfare of the local people" (Lindberg & Hawking, 1993, pp.3). Ecotourism has many salient features, including activities that have minimal impacts on the host

environment, a commitment to environmental protection and conservation, the provision of ecological education to the tourist, the securing of significant economic participation by local resource managers, active involvement of local residents, and economic and social benefits to the host community (Sirakaya et al., 1999; Wunder, 1999). It is often viewed as the ideal form of tourism in terms of sustainability. Adventure tourism, while having the potential to fulfill the above criteria, is often improperly placed beneath the umbrella of ecotourism as it takes place in a similar location – the natural environment. However, much of the research on adventure tourism has focused on the notions of scholars and practitioners or has been viewed as an extension of outdoor recreation (Weber, 2001). It focuses often on the idea of conquering the environment, as oppose to appreciating one's surroundings. The adventure industry's contribution to tourism is often ignored (Beedie & Hudson, 2003; Weber, 2001), and research to determine the sustainability of such activities is limited at best.

While tourism research continues to expand, there are on-going debates about definitional boundaries and overlaps within the tourism industry. While various subsets of tourism (e.g., wildlife tourism, ecotourism, adventure tourism, nature tourism) have developed definitions specific to their activities, there is considerable overlap between each niche. That being said, it is still difficult to apply conclusions from research on one tourism niche to all niches found within the industry. While at present there is no systematic effort to gather data worldwide on distinct categories of tourism (Honey, 1999), greater efforts need be placed on understanding the various subsets of tourism in order to ensure effective planning that maximizes tourism benefits and minimizes its impacts, thus ensuring the sustainability of the industry.

When this is considered in combination with the lack of information on adventure tourism in India, the need for new research to address the sustainable development of adventure tourism in India and worldwide becomes clear (Roy & Tisdell, 1998; Singh, 1992; Weber, 2001). As Tej Vir Singh (1992, pp. 34) writes:

“Unfortunately, tourism grows faster than tourism research which creates a questionable gap for sustainable tourism development. Meaningful impact research in various environments (ecology, economy and culture) is very much needed for community based development involving active participation of the indigenous population.”

Finally there is a need for better understanding of the social and economic opportunities tourism may provide in previously marginal mountain environments that are now developing the ability to promote adventure tourism activities in their environs.

1.4 Purpose statement

Given the dilemma of increased tourism development, in particular adventure tourism, and the need to minimize the potential adverse effects of such development, the purpose of this study was to examine the roles of the public, private and civic sectors in the planning and implementation of sustainable adventure tourism activities in the Nanda Devi Biosphere Reserve, Chamoli District of Uttaranchal, India.

1.5 Objectives

The specific objectives of the study were to:

1. To establish the current extent and potential considerations for the future of adventure tourism in Joshimath and surrounding areas;
2. to determine the current, proposed and potential role of the private, public, and civic sectors in adventure tourism development;

3. to identify, in particular, the role of the local people in adventure tourism development;
4. to understand how the location of adventure tourism activities are determined; and
5. to consider the role of environmental assessment in proposed adventure tourism development.

1.6 Research design

The research took a qualitative case study approach, examining activities taking place in the NDBR. Using the town of Joshimath in the Chamoli District as a base, where a number of the key players in the industry have offices, the study considered activities taking place in the Bhyundar and Niti Valleys. In the Byundar Valley, the trekking route to the Valley of Flowers was examined as a current route, while the development of the trekking route to Khakbunsindi was identified as a route for future considerations. In the Niti Valley, the trekking route of the Dharasi Pass was examined as a current route, with a proposed high altitude cycling scheme considered as having potential for future development.

Methods were drawn from Rapid Rural Appraisal (RRA) while trying to embody the principles of Participatory Rural Appraisal (PRA) (Chambers, 1992; Chambers, 1994a). RRA is an approach for developing qualitative understanding of a location. It has the key features of being appropriate in the face of time constraints, being iterative in nature, and producing reliable results within short-term time frames (Beebe, 1995). PRA has evolved from the techniques associated with RRA, and is described as “a growing family of approaches and methods to enable local people to share, enhance and analyze their knowledge of life and conditions, to plan, and to act” (Chambers, 1992, pp. 953).

The study used techniques such as semi-structured interviews, transect walks, mapping, participant observation, and review of secondary data sources to achieve its objectives. Data collection and analysis was iterative in nature and triangulation was applied to provide a rapid and accurate assessment of the current situation (Beebe, 1995).

1.7 Organization

The thesis is organized into six chapters. This first provides an introduction to the study. The second chapter provides a literature review addressing various topics pertaining to the study, including adventure tourism, sustainable tourism, tourism planning, environmental assessment for tourism planning, and community participation in such activities, along with a description of the context of the study. The third chapter discusses research design and methods, along with providing details on the selected cases, and the process of data analysis. Chapter 4 addresses the current roles of the various players in the adventure tourism industry, and provides an evaluation of the current level of public participation. Chapter 5 discusses some of the key considerations for future development of adventure tourism in the region. Based on the findings of Chapters 4 and 5, along with suggestions from the literature and personal reflection, Chapter 6 makes recommendations to the various sectors for the future of adventure tourism in the NDBR.

CHAPTER 2. ADVENTURE TOURISM, SUSTAINABILITY & PLANNING

2.1 Tourism and India

The history of travel and tourism can be said to be as old as the human race itself (Nickerson & Kerr, 1998). From prehistoric peoples traveling to find food, to travel and trade in the Roman Empire, to backpacking through Europe on summer holidays, people have been making journeys around the planet for a myriad of reasons. In recent history, technology had made travel easier, more comfortable, and faster than ever before (Nickerson & Kerr, 1998). Travel and tourism, in various forms, has a long history in India. From pilgrimage routes that date back centuries, to the silk and spice trade that marked the early portion of the last millennium, to British colonial rule and the development of Hill Stations, travel to and in India has no shortage of adventure. Whether you visit the back waters of Kerala, the beaches of Goa, the deserts of Rajasthan, or the Himalayan regions of the north, India is described as a place that will sideswipe you with its size, clamour and diversity (Lonely Planet, 2003).

Tourism, in the broadest sense, is defined as “the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited” (WTO, 2000b, pp. 1). Tourism is considered one of the largest industries world-over, with worldwide receipts totalling US \$523 billion in 2003 (WTO, 2004). It is an industry that encompasses a wide range of components, from hotels, to transportation, to travel agents, and so on.

While tourism worldwide continues to emerge as a leader in growth, the tourism sector in India, has traditionally failed to receive due importance on the country’s

development agenda (Government of India, 2002). Major reasons cited for the poor performance of the tourism industry include distance, i.e., location far from affluent tourist markets, lack of facilities, limited level of professionalism of those involved in the industry, the ‘image’ of the country (e.g., not a holiday location, safety concerns, inadequate services), and the low priority of tourism on the government agenda (Government of India, 2002). Despite its tiny share of world tourist arrivals, tourism in India has begun to emerge as the second largest foreign exchange earner for the country even though the mainstay of the tourism industry in India continues to be domestic tourism (Government of India, 2002). And while the federal government still places tourism low on the list of priorities for development, many states, such as Uttaranchal, are pursuing tourism development more aggressively as it has been identified as a means of earning foreign exchange.

Described as a compelling destination, India is known for being “intricate and worn” with all sorts of “jarring juxtapositions, intractable paradoxes and frustrations” (Abram et al., 2001, pp. 6). The travel literature suggests that it is a country that is far from the easiest to travel around, a journey that is hard going, and a challenge even to the most experienced travelers (Lonely Planet, 1997). It is a destination that appeals to adventure seekers and that is difficult to consider as a holiday (Elsrud, 2001).

2.2 Defining adventure tourism

Author Thornton Wilder once said that “The test of an adventure is that when you’re in the middle of it, you say to yourself ‘Oh, now I’ve got myself into an awful mess; I wish I were sitting quietly at home.’” While this quote provides some insight into the essence of adventure, it does little to help us qualify the subject of adventure tourism.

In fact, “players in the tourism industry have enthusiastically adopted the term adventure tourism, but it has no readily agreed definition” (Swarbrooke et al., 2003, pp. 4). Certain authors would even argue that many definitions of adventure tourism focus too narrowly on the aspect of adventure, and ignore the contribution of adventure to the tourism industry (Weber, 2001). While it is absolutely necessary to consider the tourism component of adventure tourism, perhaps an understanding of the term adventure is a suitable place to begin defining the industry.

Adventure is an evocative term. “Adventure speaks of beginning, boldness and power. Adventure connotes participation and active involvement in life. An adventure, a quest, begins because of a human desire, a drive to experience that which is hidden and unknown” (Quinn, 2003, pp. 149). Adventure has been romanticized in literature, and suggests an element of exploration and even discomfort. Common to various definitions of adventure is an uncertainty of outcome, an element of risk, challenge and physical engagement, as well as anticipated rewards upon completion (Beedie, 2003; Cater, 2000; Ewert, 1989; Hall & McArthur, 1992; Honey, 1999; Swarbrooke et al., 2003). Adventure is difficult to define, since it is a subjective experience and a personal construct. As one author suggests “As beauty is in the eye of the beholder, adventure is in the mind and heart of the participant” (Swarbrooke et al., 2003, pp. 14).

Martin and Priest (1986) suggest that adventure is an interplay between competence and risk. Here, risk refers to the potential to lose something of value, and competence is a synergy of skill, knowledge, attitude, behaviour, confidence, and experience. Within their model, Martin and Priest suggest five potential outcomes dependent upon the degrees of risk and competence exerted: exploration and

experimentation, adventure, peak adventure, misadventure, and devastation and disaster. This conceptualization of adventure is complementary to Csikszentmihalyi's (1975) theory of "flow", which describes a peak experience when the challenge at hand and the skill of the participant are well matched. Flow describes a state of experience that is engrossing, intrinsically rewarding, and beyond the parameters of boredom and anxiety. At this point, it is necessary to clarify that these notions of adventure are largely based upon a western perspective. In other cultures, activities that we may consider as adventurous may be perceived quite differently. Conceptualization of adventure will reflect the history, culture, and geography of a region (Swarbrooke et al., 2003).

Beyond the understanding of the essence of adventure, adventure pursuits are generally considered to be subsets of outdoor recreation (Ewert, 1989, Weber, 2001). In this context, they are often placed along a continuum of "soft" and "hard" activities (Adventure Travel Society, 2002; Hill, 1995; Millington & Locke, 2001). Soft adventure activities are characterized by a perceived element of risk, a low element of real risk, and do not necessarily require experience or extensive training for participation. Hard adventure activities, on the other hand, are subject to high levels of actual risk, require intense commitment on the part of the participant, and require skill, knowledge, and expertise for participation. The Adventure Travel Society places a variety of outdoor adventure pursuits in these two categories (Table 1).

Soft adventure pursuits	Hard adventure pursuits
Horseback riding, rafting, sea kayaking, snorkeling, bicycle touring, camping, canoeing, cross-country skiing, dog sledding, sailing, snowshoeing, surfing, wildlife tours, etc..	Climbing expeditions, rafting on class IV+ rivers, white water kayaking, arduous treks, hang gliding, rock climbing, wilderness survival, mountain biking, heli-skiing, etc..

Table 1 Classification of adventure pursuits (Adventure Travel Society, 2002).

While the classification of pursuits and the understanding of the essence of adventure offers an understanding of the concept and its activities, it does little to provide us with a working definition of adventure tourism. Additionally, there is debate on the differences between adventure tourism, and other established niches in the tourism industry (Swarbrooke et al., 2003). Certainly, a number of activities, industries, institutions, and ideas have contributed to the development of adventure tourism. Swarbrooke et al. (2003) suggest that the following themes have contributed to the adventure tourism industry today:

Hedonism or pleasure seeking, exchange students, mercenaries, pilgrims, settlers and colonizers, missionaries, natural historians, women travelers, spiritual enlightenment, hunting, designer adrenaline rushes, ecotourism, ‘home away from home’ adventure, ‘walking on the wild side’ urban exploration, last minute go anywhere travelers, explorers and adventurers, aid workers, traders, seasonal employees, ‘outward bound’ tradition, romantic era mountain sports, the expression of the restless soul, travel writer adventurers, artificial environments, sex tourism, drug tourism, etc..

Common to the historical elements of adventure are themes such as the element of risk, be it real or perceived, activities or places which are out of the ordinary, and taking place in unique or unknown environments. The themes used in defining adventure

tourism are similar in nature. However, it is essential to acknowledge the contribution of the tourism industry in defining adventure tourism, a step which has often been ignored in the conceptualization of the industry (Weber, 2001).

Returning then to the basic definitions of tourism, as delineated by the World Tourism Organization (1995, pp. 1), tourism is “the industry that encompasses the transportation, lodging, feeding, and entertainment of the traveler.” Thus adventure tourism is more than the experience of an adventure-based activity, but also the related services required for the experience to take place. Swarbrooke et al. (2003) apply the theory of supply and demand to adventure tourism, wherein demand is represented by the adventure tourist and the adventure tourism market, and supply is represented in the destination, the venues, and the adventure tourism industry. Thus, adventure tourism may be considered as a composition of adventure (the inner experience), travel and transportation, setting or location, and the activity itself (the outer experience) as suggested by Figure 2.

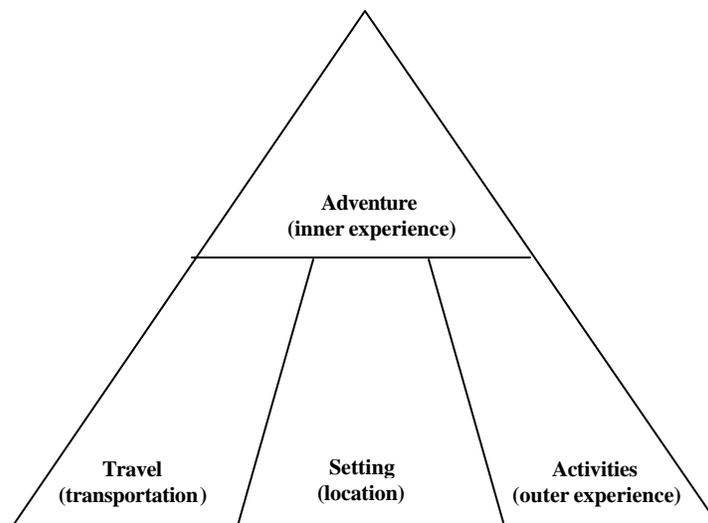


Figure 2 Components of adventure tourism (adapted from Swarbrooke et.al., 2003).

While adventure may be the desired and peak event for the tourist, it may not be made possible without the basic services, amenities, and experiences produced by the tourism industry. This is not to say that adventure tourism needs to be an event animated by the tourism industry, but rather that the experience of adventure travel entails more than an activity or experience in and of itself.

With recognition for the need of inclusion of the supporting components of adventure tourism, the definition of adventure tourism used for this study was as follows:

Adventure tourism is the sum of the phenomena of adventure and its related supporting components (i.e., transportation, location, and activities). It is characterized by the practical engagement of the tourist, the element of risk (physical or otherwise) and uncertainty, and its tendency to occur in remote or exotic environments.

(Adventure Travel Society, 2002; Beedie, 2003; Cater, 2000; Ewert, 1989; Hall & McArthur, 1992; Honey, 1999; Swarbrooke et al., 2003).

Having defined adventure tourism, the critical question is why study the subject? Ultimately, adventure tourism has received little scholarly attention (Weber, 2001; Beedie, 2003), while the industry continues to grow (Dhurva, 2003). While plenty of research exists on the understanding of the adventure experience and adventure pursuits (Beedie & Hudson, 2003; Ewert, 1989; Miles & Priest, 1999) more attention needs to be paid to adventure's contribution to tourism (Weber, 2003; Swarbrooke et al., 2003), along with ways of ensuring the sustainability of the industry.

2.3 Sustainable tourism

Sustainable tourism is a concept that has emerged from the study of tourism and its impacts. The concept of sustainable tourism was formally accepted by the tourism industry around the same time as the World Commission on the Environment and Development's report, *Our Common Future* (1987, pp. 1), which defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." However, there was already recognition within the tourism industry that the impacts of tourism development were far more reaching than those solely concerned with economics (Hardy, et al., 2002).

A primary example of this is seen in Butler's tourism area lifecycle model (1980). The model was borrowed from the business concept of a product life cycle, which suggests that products go through various stages of development and decline. He applied this concept to tourism destinations, as destinations can be considered as products that are developed, marketed, and eventually experience decline. "The speed of progression of a tourist attraction along the development curve of the life-cycle is critical to the sustainability of the enterprise" (Batta, 2000, pp. 43). While the model has been criticized for both being too based in theoretical concept (Haywood, 1986), and lacking in empirical case studies (Getz, 1992; Hovinen, 2002), it is still seen as a tool that recognizes the relationship between tourism, the environment, and the limitations of growth.

Another early application of the tourism life cycle was demonstrated by Plog, (1972) who sought to understand how individual personalities affected tourism behaviour. By using motives and behaviours to categorize travelers, psychographic data was used to create a continuum on which tourist types could be based (Figure 3).

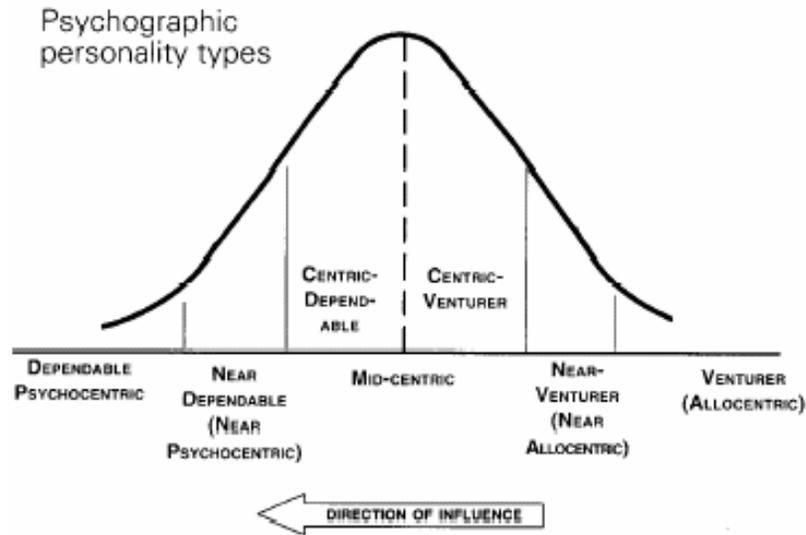


Figure 3 Revised psychographic personality type (Plog, 2001).

At one end of the continuum sit the Dependables (once referred to as Psychocentrics) who prefer safe and familiar destinations, with all the comforts of home. At the opposite end lie the Venturers (once referred to as Allocentrics) who seek adventurous and exotic destinations, often with limited services and amenities. The majority of people fall somewhere in between, sharing characteristics from both of the extreme ends of the continuum, leading to behaviour that could take an individual to one destination or another. As destinations appeal to specific types of people they typically follow a predictable pattern of growth and decline in popularity over time. “As destinations change, they lose the audience or market segment that made them popular and appeal to an ever shrinking group of travelers” (Plog, 2001, pp. 13). In order for a destination to remain successful, it must avoid uncontrolled development and protect the features that first attracted people to the area. The ideal positioning on the psychographic spectrum according to Plog (2001) is somewhere in the middle of the near-venturer

segment. “A destination at this point has the broadest positioning appeal possible because it covers the larger portion of the psychographic curve. The destination usually has a reasonable level of development, but hasn’t gotten out of hand” (Plog, 2001, pp. 20).

Sustainable tourism strives to balance the social, environmental, and economic outcomes of tourism development (Aronson, 2000). Much like the many forms of alternative tourism that emerged in the last two decades, the idea of sustainable tourism is met with debate in terms of its definition and characteristics (Weaver, 1998). Potentially, the concept of sustainable development “provides a basis for the management of tourism which integrates concern for the natural, built, and cultural environments, with continued economic development, so as to enhance all ‘quality of life’ issues at the destination area and beyond” (Hunter & Green, 1995, pp. 52). Critiques of sustainable tourism however, suggest that “to date, there has been a surplus of wishful thinking and perhaps a lack of realism and pragmatism in the sustainable tourism debate” (Swarbrooke, 1999, pp. 345). This is demonstrated in the lack of examples of large-scale sustainable tourism success stories. In particular, tourism development has not adequately addressed issues of geographical scale and intersectoral cooperation (Hunter, 1995a).

Despite the lack of hard evidence to support the idea that sustainable tourism is an achievable goal (Swarbrooke, 1999), tourism continues to be adopted by many developing countries as a means of economic development with minimal effects compared to other forms of industry (Cater, 1987; Weaver, 1998). It has been viewed as a clean industry with mostly positive impacts to the area of development (Butler, 1993). However, despite the potential for foreign exchange and the pressures for economic growth and job creation, tourism cannot be seen as a panacea for all socio-economic

malaise (Briedenhann & Wickens, 2004; Cater, 1987). It is important for governments to recognize both the positive and negative impacts of development and to not “fall prey to the dangers of random ad hoc development” (Briedenhann & Wickens, 2004, pp. 71).

The impacts of tourism development have been the source for various research projects. This includes examination of tourism impacts on the environment (Cohen, 1978; Madan & Rawat, 2000), of impacts on human-environment relationships (Gossling, 2002), of the social impacts of project development (Walker et al., 2000), not to mention a myriad of studies on the economic impact of tourism activities. The potential environmental, socio-cultural, and economic impacts are explored below. The tables summarizing such impacts are drawn from the UNEP’s (2003) understanding of sustainable tourism, and provide an excellent summary of the types of potential impacts from tourism development, both positive and negative.

2.3.1 Environmental impacts

Environmental impacts of tourism development are generally thought to be the result of bringing a large number of people, accustomed to a relatively high standard of amenities, to areas that were previously secluded (Cohen, 1978). Tourism utilizes environmental resources and often takes place in areas with distinct and attractive features (Hunter & Green, 1995). Factors influencing environmental impacts include the intensity of tourist arrivals, resiliency of the natural ecosystem, the spatial-temporal relationships of development, and the transformational nature of the development (Cohen, 1978). The UNEP (2002) list of potential environmental impacts of tourism is described in Table 2.

Potential negative environmental impacts	Potential environmental benefits
Depletion of natural resources <ul style="list-style-type: none"> ▪ over use of water ▪ overuse of local resources ▪ land degradation 	Financial contributions to conservation efforts
Pollution <ul style="list-style-type: none"> ▪ air pollution and noise ▪ solid waste and littering ▪ sewage ▪ aesthetic pollution 	Improved environmental management practices careful planning for controlled development
Physical impacts <ul style="list-style-type: none"> ▪ development impacts: construction, infrastructure, deforestation & intensified land use, marina development ▪ tourist activities: trampling, anchoring & marine activities, alternation of ecosystems because of tourist activities 	Raising environmental awareness Protection and preservation Alternative forms of employment
Global Impacts <ul style="list-style-type: none"> ▪ loss of biodiversity ▪ depletion of ozone layer ▪ climate change due to production of greenhouse gases associated with transportation 	Regulatory measures

Table 2 Environmental impacts of tourism (UNEP 2002).

As the “sustainability of tourism is directly tied to maintaining the integrity of an attraction” (Brown et al., 1997, pp. 316), the state of the environment plays a critical role in the success of a tourism destination. Thus, when considering tourism development, the long-term consequences to the environment must be considered.

2.3.2 Socio-cultural impacts

The second form of tourism impact is that of socio-cultural effects. These are the effects on host communities through direct and indirect relations with tourists, and interactions with the tourism industry (UNEP, 2002). They may occur as the result of tourism development, and in some cases prior to development if a project is perceived to be large, controversial, or risky (Walker et al., 2000). Additionally, socio-cultural impacts

are difficult to measure, as influences are not always apparent, depend on value based judgments, and can occur at various points during development (Butler, 1993; UNEP, 2002). The potential socio-cultural impacts of tourism are summarized in Table 3.

Potential negative socio-cultural impacts	Potential positive socio-cultural impacts
<p>Change or loss of indigenous identity & values</p> <ul style="list-style-type: none"> ▪ commodification ▪ standardization ▪ loss of or staged authenticity ▪ adaptation to tourist demands <p>Cultural clashes</p> <ul style="list-style-type: none"> ▪ economic inequality ▪ irritation due to tourist behavior ▪ job level friction <p>Physical influences causing social stress</p> <ul style="list-style-type: none"> ▪ resource use conflicts ▪ cultural deterioration ▪ conflict with traditional land-uses <p>Ethical issues</p> <ul style="list-style-type: none"> ▪ crime generation ▪ child labour ▪ prostitution & sex tourism 	<p>Contributions to socio-cultural conservation</p> <ul style="list-style-type: none"> ▪ tourism as a source for peace ▪ strengthening communities ▪ development of facilities ▪ reevaluation of cultural traditions ▪ encouragement of civic involvement and pride <p>Involvement in tourism planning and implementation can result in successful sustainable tourism development</p>

Table 3 Socio-cultural impacts of tourism (UNEP, 2002).

Ultimately, the extent of socio-cultural impacts, while difficult to assess, will depend on the ability of host communities to absorb tourism impacts in creative and conservative ways that do not detract from their core values and beliefs (Robinson & Twyman, 1996). Furthermore, tourism may in fact provide a vehicle to address quality of life issues, at the destination and beyond (Hunter & Green, 1995).

2.3.3 Economic impacts

Finally, the economic impacts of tourism development need be addressed. Developing nations are often strong advocates for tourism development as it is viewed as a source of foreign income, economic development, and alternative employment (UNEP, 2002;

Walker et al., 2000; Weaver, 1998). As with other impacts, economic development brings both positive and negative consequences, as indicated by Table 4.

Potential negative economic impacts	Potential positive economic impacts
Leakage import leakage export leakage	Foreign exchange earnings
Enclave tourism (e.g. all-inclusive resorts)	Contribution to government revenues direct and indirect (e.g. various taxes and levies)
Infrastructure costs	Employment generation
Increased prices	Stimulation of infrastructure investment
Economic dependence of the local community on tourism	Contribution to local economies
Seasonality of employment	
Effects from impacts on other forms of industry	

Table 4 Economic impacts of tourism (UNEP, 2002).

One of the common arguments for promoting tourism development as a means of stimulating economic growth is the multiplier effect. “Economic multipliers result from the process by which tourist spending stimulates further spending and increased economic activity” (Batta, 2000, pp. 49). It is the way in which incoming tourism spending can benefit the community at large (Nickerson & Kerr, 1998). This can include impacts from expenditures directly related to tourism, expenditures incurred indirectly such as through the re-spending of tourist income by businesses on wages or other operating expenses, or can be induced by the re-spending of wages earned from tourist income (Batta, 2000). Of course, there is also the risk that a community will be unable to support the influx of tourism and will need to import workers and goods to sustain the industry. This effect is commonly referred to as leakage, and means that the host

community does not receive the full benefit of tourism generated revenue (Nickerson & Kerr, 1998).

2.3.4 Sustainability and ecotourism

Whether the impacts are economic, socio-cultural, or environmental, the primary goal of sustainable tourism is to maximize the benefits while minimizing the negative impacts. As tourism is a complex and widespread industry, there is a need for integrated strategies between sectors as a part of effective planning to safeguard the cultural heritage and natural environments of tourism destinations (Aronson, 2000; Dax, 2001). One of the forms of alternative tourism often mentioned in terms of sustainability is ecotourism. At the most basic level, ecotourism is defined as “responsible travel to natural areas which conserves the environment and improves the welfare of the local people” (Lindberg & Hawking, 1993, pp. 3). Ecotourism has many salient features, including activities that have minimal impacts on the host environment, a commitment to environmental protection and conservation, the provision of ecological education to the tourist, the securing of significant economic participation by local resource managers, active involvement of local residents, and economic and social benefits to the host community (Sirakaya et al., 1999; Wunder, 1999).

A successful ecotourism program, that is, one that aims to satisfy both conservation and development objectives, “is supported by partnerships between local communities, government agencies, NGOs, and the private sector. Such partnerships are recognized to emerge from areas of mutual benefit to each of the sectors involved” (Sproule & Suhandi, 1998, pp. 235). However, while there is increasing recognition of the need to involve local communities, there is less agreement on who needs to be

involved and how such participation should take place. It is, however recognized that a “failure to allow for open and equitable participation at the outset can limit the success of a project or a program later on” (Sproule & Sunhandi, 1998, pp. 218).

Since ecotourism and adventure tourism activities have the potential to occur in the same location, there is an opportunity for overlap between the two forms. While there is a risk of the mislabeling of adventure tourism as eco-adventures or as ecotourism, there is also the opportunity to develop adventure activities in such a way that they encompass the principles of ecotourism and sustainability.

2.3.5 Sustainable tourism and mountain environments

Sustainable tourism in mountain environments is important in the context of this research due to the vulnerability of mountain ecosystems and the need for appropriate management (Godde, 1998). In recent years, the sensitivity of mountain environments has become a concern and focus worldwide, greatly assisted by Chapter 13 of the 1992 Earth Summit’s Agenda 21, *Managing Fragile Ecosystems: Sustainable Mountain Development*. Mountain environments are unique in many senses. Mountain areas cover one fourth of the world’s land surface and are rich in natural resources that include water, timber, minerals, and biodiversity, not to mention culture and heritage. These attributes make mountain areas a desirable destination for tourists, adventure seekers, migrants, and pilgrims, offering a place of rest, solitude, adventure, recreation, and scenic beauty (Godde, 1998). However, they are also areas particularly susceptible to degradation from resource use and development (Berkes & Gardner, 1997). Thus, special consideration much be given to mountain areas to ensure their sustained economic, socio-cultural, and environmental viability.

Mountain tourism depends on and is influenced by a number of special features related to high altitude and relative isolation. Such features include (but are not limited to) adventure/recreation opportunities, biodiversity, cultural diversity, difficult access, ecosystem fragility, lack of infrastructure, lack of services, natural hazards, poverty, protected areas, scenic beauty, spirituality, and traditional micro-enterprise (Godde, 1998). Increased pressure on mountain areas from tourist arrivals can have negative impacts on these previously isolated systems. Gangwar (2002) suggests that the following items (among others) be priorities in managing mountain development:

- Recognition of mountain areas as special and distinct and worthy of attention in their own right.
- Recognition of mountains as valuable sites for preserving cultural integrity and conserving biological diversity.
- Recognition of the need for new or reinforced legal mechanisms to protect fragile mountain ecosystems and promote sustainable and equitable development in mountain areas.

The central challenge to developing mountain tourism is no different than that of any tourism development. For tourism to be sustainable it must seek to maintain the balance between socio-cultural, environmental and economic impacts of development. Central to this idea is the concept of integrated and effective tourism planning.

2.4 Tourism planning and development

Tourism planning has been widely studied and has incorporated numerous theories and frameworks. While there is debate about which approach to tourism planning is 'the best', it is generally agreed that better planning can prevent most negative environmental and social impacts at the same time that the economic benefits are enhanced (Gunn, 1994). Additionally, it is recognized that effective planning is

required to ensure sustainability in the tourism industry (Bramwell & Sharman, 2000; Cronin, 1990).

There are several general components required in all tourism planning. First, there are the basic components required by a tourism destination. These can be described as the physical, socio-cultural, and economic resources of a community (Cater, 1987). In the simplest of forms, these include natural resources (i.e., a physical means of supporting the tourist); infrastructure, or the 'built-in' and 'built-up' structures; a transportation system (i.e., the actual modes of transportation); and finally the hospitality of the host community, an intangible but essential element (Nickerson & Kerr, 1998). While such services might not seem as important for adventure activities that take place in remote areas, they are essential to an area that acts as a service center for adventure tourism provision. It is the planning, development, and maintenance of these elements that determine the success of a destination. Ideally, tourism will develop in such a way that a destination is pleasant to visit. This, however, is a difficult goal to achieve as tourism is a complex industry faced with divergent viewpoints, interests, and activities (Butler, 2002).

In the broadest sense, tourism planning can be placed into three general categories, described by Pearce (1989) as integrated, catalytic, or coattail development. Integrated development is characterized by having one developer (or developing agency), being rapid, and having a functional form or cohesive theme. A classic example of an integrated tourism development is Disney World. Mountain areas in Canada such as Whistler provide an example of catalytic development. Here, the initiation of a centralized development, such as a ski resort, encourages secondary developers to build complementary facilities such as shops, restaurants, and accommodation options.

Catalytic developments foster a sense of interdependence among the stakeholders, the overall success of the destination depends on the activities of all of the players. Finally, coattail development refers to destinations that share no common theme, have duplication and redundancy in services, create a competitive environment, and are late to involve the community. Examples of such developments can be seen near many unique natural attractions across North America, like national parks or locations like Niagara Falls, where entrepreneurs jump at the opportunity to ride on the coattails of the attracting site.

While these three descriptions provide a reasonable generalization of the types of tourism planning that can take place, it is important to recognize that planning can take many forms. Approaches to tourism planning have been varied, from applying ecological concepts such as carrying capacity to tourism (e.g., Brown, et al., 1997, Pearce, 1989), to adopting management theories, such as stakeholder management (e.g., Sautter & Leisen, 1999), or collaborative theory (e.g., Jamal & Getz, 1995), to using tools common to environmental assessment, such as social impact assessment (e.g., Walker et al., 2000). The potential models for tourism development are wide-ranging, and always evolving.

One of the models often considered for planning in natural or wilderness areas is that of carrying capacity. The carrying capacity for tourism is “envisaged as the capacity of a destination area to absorb tourism before the host feels negative impacts of tourism” (Batta, 2000, pp. 107). Considerations must be made for both the physical carrying capacity of the environment, along with the social carrying capacity of the host community. While this seems like a reasonable approach to achieving sustainability, the question then becomes how is that capacity determined? It is certainly a concept that is

limited by subjectivity, as the values and perceptions of both the users and the managers must come into play (Batta, 2000).

An approach that stemmed from dissatisfaction with carrying capacity as a planning tool (McCool, 1996) is the United States Forest Department's approach to wilderness planning with the Limits of Acceptable Change (LAC) framework (Stankey et al., 1985). The LAC framework allows for decisions for land use to be made according to what social and biophysical impacts are determined as acceptable or appropriate by a planning committee. It is an approach that is considerate of both social and biophysical factors, and allows for a group of individuals to determine what is acceptable, as opposed to approaches that may only consider the opinions of resource planners. The LAC process involves several steps, and is useful when there are conflicting goals. It requires the development of a hierarchy of goals and the development of written (ideally quantitative) indicators and standards. The process entails the compromise of certain goals to attain the standard(s), and later may require compromise to other goals so that the standard is never violated (Cole & McCool, 1998). While the process has been applied in both recreational and non-recreational settings, it is a framework that may be difficult to apply when there is little agreement about goals and their relative importance (Cole & McCool, 1998).

A common feature of many of the approaches, is the desired outcome of sustainability, limiting adverse tourism impacts (socio-cultural, environmental, and economic), and the need for local involvement in tourism planning. They also include a component of monitoring and evaluation. Development strategies can be measured against a set of performance indicators. Such indicators need to be expressed in terms of measurable targets (Swarbrooke, 1999). As the nature of the tourism industry evolves and

fluctuates, so must the strategies of monitoring and evaluation, with the development of relevant indicators.

Another common feature of planning approaches is the involvement of the various stakeholders. As the literature on ecotourism suggests, there is a need for involvement of the various stakeholders at the outset of development to help ensure success (Sproule & Sunhandi, 1998). This will require the various tiers of government, tourism agencies, private sector organizations, and communities to clearly define their roles and work towards partnerships that reinforce the benefits of tourism development (The Cluster Consortium, 1999). This will require the recognition that the various stakeholders in the industry come with a different set of roles, responsibilities and interests (Swarbrook, 1999).

2.4.1 Environmental assessment (EA) for tourism planning

Also referred to as environmental impact assessment, EA is an approach with potential use for tourism development. Often considered as a policy tool for planning, EA strives to prevent or mitigate negative environmental impacts of development activities (Lee & George, 2000). It is a process that has been adopted by numerous countries, and was identified by the United Nations Conference on Environment and Development (1992) as an instrument to be used for proposed activities that are likely to have a significant adverse impact on the environment. While it is typically not a tool used in tourism planning in the most general sense, it is often a tool used in the development of specific tourism components. For example, hotels, resorts or other major infrastructure developments are often subject to EA, as are most developments that occur in parks or protected areas.

Reasons why EA has not been adopted for broader tourism planning purposes include the huge variation in tourism project size, the variance in tourism type (Hunter, 1995b), the relative absence of examples of EA for tourism planning, the lack of benchmark studies for comparison, and issues of fragmentation (i.e., the fact that tourism consists of a wide variety of separate components) (Butler, 1993). This coupled with the fact that the complete range of impacts from tourism developments may only become apparent after a considerable amount of time has passed, make the scope of EA difficult to determine at the onset of development (Butler, 1993).

Butler (1993) characterizes the application of EA to tourism under various circumstances, as is summarized in Table 5. These observations on impact assessment for tourism planning help to clarify why there has been a lack of comprehensive information available about the use of EA for tourism planning.

Characteristics	Agent		
	Public Sector	Private Sector	Academic
Principal focus	Environmental	Economic	Social
Timing	Pre-development	Pre-development	Post-development
Tone	Neutral	Mostly positive	Mostly critical
Breadth	Exhaustive in nature, focused in topic	Focused in topic, detailed	Broad in issues, less detailed
Context	Specific case study	Specific case study	Specific case study
Decision making role	Major	Major	Minor, if any
Dissemination	Rarely published, may be available to those interested	Rarely published or disseminated except when required	Usually published and disseminated

Table 5 Major characteristics of types of impact assessment studies (adapted from Butler, 1993).

However, if considered as a tool for general tourism planning, EA may prove to be a process that is well-suited to tourism development. As Batta (2000, pp. 119) notes, “Potentially, (EA) has an important contribution to make to the realization of sustainable tourism development, because it serves as a means to translate the goals of sustainable tourism development to practical reality on the ground.” Hunter (1995b) suggests several reasons why tourism projects should be subject to the EA process including if a proposed development takes place in a location of outstanding international, national, or local importance in terms of its natural, built, or cultural attributes.

EA has several purposes. It seeks to identify potential adverse consequences of development so that they can be avoided, mitigated, or otherwise taken into account during planning. The process ensures that potential negative impacts are considered in planning, design, and action. Finally, the results of EA can determine the way in which projects will be implemented and monitored (Lee & George, 2000). At a minimum, EA is a means of anticipating and reducing problems before they arise. More positively, it is a far-sighted approach to determine what actions should be taken to make the best of development opportunities (Gibson, 1993).

EA consists of several steps or stages. The earliest step in the process is often referred to as environmental screening. Screening determines whether the development project need be subject to a complete environmental assessment. It aims to assess proposed projects against basic criteria, and often uses checklists to determine if a project need be investigated further (Neefjes, 2000). This step is similar to what Fennel (2003) describes as an inventory of attractions and resources for ecotourism planning. In this step, the tourism service provider should take an inventory of the physical, natural,

recreational and socio-cultural resources of the area in order to document the impacts of the tourism activities. Such an inventory will help determine the capacity of a resource to withstand the impacts of tourism activities to determine the future potential of the resource or site.

If a more detailed account of a development or project is required, the process of scoping is undertaken. Scoping identifies impacts in greater detail, and the most significant potential impacts are identified. If a project is considered as large scale and/or costly a complete environmental impact assessment may be required. This is usually a multidisciplinary study that consists of detailed research that is specifically commissioned for the project. A summary document called an environmental impact statement (EIS) is produced. The EIS usually includes a full project description, statement of objectives, justification of the project, an adequate description of the existing environment, identification and analysis of the likely impacts of project development, and mitigation measures to be taken to minimize potential impacts (Batta, 2002).

Beyond these initial steps of EA is a system of project implementation, monitoring, evaluation, and mitigation (Neefjes, 2000). Barrow (1997) emphasizes the need for the monitoring phase of EA for tourism activities, since tourism is a dynamic and ever-fluctuating development. There needs to be some allowance for changes in trends and attitudes. Just as the needs of the tourist will change from year to year, so too will the basis of the attraction: the physical, natural, recreational, and socio-cultural resources of the destination (Fennel, 2003). Monitoring should be geared to ensure that the destination remains true to the characteristics that attracted tourists in the first place, maintaining ideal positioning at the early stages of the destination life-cycle (Plog, 2001).

One of the primary differences between EA and many other planning options for tourism is that EA is often adopted in legislation, making it a mandatory process for development projects, whereas tourism planning is often done on an ad-hoc basis. Legislation often also identifies suitable points for public involvement. Legislation for EA varies widely from jurisdiction to jurisdiction and often tourism is not an activity that is subject to the process. This is due to the fact that a great deal of tourism developments fall below the minimum threshold for developments that require an assessment (Butler, 1993). Additionally, many developing countries still lack the legislative framework that makes EA mandatory for any or all tourism development. In India, the legislative framework is provided by the Environmental Impact Assessment Regulations (1994) under the Environment Protection Act (1986).

2.4.2 Public participation

Whether tourism planning takes an EA approach or otherwise, public involvement is recognized by many legislators, practitioners, academics, non-governmental organizations, and communities as a fundamental component of the development process, although what constitutes 'good' public participation is still widely debated (Weber et al., 2001). Models of public participation are as broad-ranging as approaches to tourism planning, but regardless of what form it takes, there is recognition that it is a critical element in successful project development. Since individuals are likely to hold different views on what constitutes 'good process', the design of the process needs to reflect the needs and desires of potential participants.

One of the seminal models of public participation is described by Arnstein (1969), who suggests that there are varying degrees of how public participation occurs.

Described as a ladder of public participation, there are degrees of non-participation (i.e., the public is manipulated or assumed as powerless, so participation is a form of pathology), degrees of tokenism (i.e., the public is informed, consulted, or even allowed to plan, but with no real control over the decision-making outcomes), and finally degrees of citizen power (i.e., power is distributed through partnerships, is delegated, or is given completely to the public).

Variations on Arnstein's Ladder have emerged over the years, such as the International Institute for Environment and Development's (IIED) (1995) typology of participation, which was developed in reference to community approaches to conservation. Similar to Arnstein's model, the lower forms of participation in IIED's typology take place when community involvement is limited to informing people, or providing only certain information, wherein the influence of the public over the process is negligible. In the mid-range of public participation falls the categories of participation by consultation, and participation for material incentives, wherein the public is providing resources and information, but where there is still very little influence in the process, and there is limited obligation and/or stake for the public to continue with the actions in the long term. Finally, in terms of citizen power, the IIED (1995) describes the levels of functional participation, interactive participation, and self-mobilization, each of which involve some level of control over the process with groups being formed to meet objectives.

While ideally the public should be acting at the higher levels of participation, no participation level is bad to begin with, especially as any public process needs to consider local social, political and historical factors. The desired outcome of any process is

however, to improve the level of participation over time, through constant efforts to increase involvement to the maximum extent possible (Badola et al., 2002). Particular attention needs to be given to the perception of legitimacy and fairness within the process (Weber et al., 2001). Gibson (1993) offers three principles for public participation, including openness (i.e., decisions must be open to public involvement and scrutiny as early in the process as possible), fairness (i.e., equal treatment of all parties, including access to funding), and finally, participative (i.e., the process should be facilitated to ensure fairness).

A diagram comparing the various frameworks for public participation can be found in Appendix A. These frameworks provide insight into varying degrees of community involvement and can provide criteria to evaluate the level of citizen involvement. It is important to recognize however, that achieving genuine community participation is difficult and may in fact be a constraint to development. Steps must be taken to ensure community input and foster community-led decisions and initiatives (Briedenhann & Wickens, 2004).

2.4.3 Linking planning and participation

The quest towards sustainable tourism development begins with planning, and is more likely to succeed where the civic sector supports efforts and are kept informed and, ideally, involved (Barrow, 1997). The challenge is how to link community participation with a planning process such as EA. In recent years, innovations in EA processes and concepts “have facilitated its application to small projects focused on basic human and livelihood needs” (Spaling, 2003, pp. 152), in what is called community-based environmental assessment (CBEA). The approach recognizes that traditional EA methods

(such as geographic information systems, standardized indices, simulation models, etc.) can be unsuitable for community-level assessment. CBEA involves a shift to methods that focus on a participatory approach with assessment methodologies adapted from participatory rural appraisal (Chambers 1992) that incorporate indigenous knowledge and seeks to link community EA with project planning (Spaling, 2003).

CBEA may require facilitation by external experts, but the process is designed in such a way that the outcomes are entrusted to the community, and not an outside authority. “Communities select valued environmental components, assess impact significance, determine mitigation measures, and decide whether or not to proceed with a project” (Spaling, 2003, pp. 160). Information is analyzed with the use of participatory rural appraisal tools, which will be discussed in further detail in Chapter 3. CBEA offers what Spaling (2003) describes as cautious optimism for achieving environmental sustainability and continued benefits in regions where both are considered critical.

2.5 A snapshot of tourism in Uttarakhand

It was at Independence, in 1948, that the first tourism office emerged at the federal government level with the Tourist Traffic Branch under the Ministry of Transport. By 1958, recognizing the potential for tourism in the country, the Department of Tourism was established, albeit in a somewhat haphazard way. The government began the construction of various tourist bungalows, while the states were encouraged to develop tourism information offices (Seth, 1978). Over the years, the responsibilities for tourism promotion and development have fallen largely into the hands of state and local governments (Roy & Tisdell, 1998).

But tourism in the Himalayan region of India was occurring long before the establishment of tourism departments. For centuries, tourists have flocked to numerous locations in the mountains in the form of pilgrimage. Explorer H.W. Tillman (1937, pp. 158) writes on the auspicious nature of the region saying:

“The superstitions, myths, and traditions relating to mountains, are most of them interesting and some beautiful. The mountains of Garhwal are particularly rich in such stories, being as Garhwal is the birthplace of the Hindu religion, the traditional home of most of the gods of the Hindu Pantheon, and the terrestrial scene of their exploits. Every mountain and river, almost every rock and pool, is associated in legend with the life of some god.”

This long tradition of religious travel continues to this day, with millions of visitors making their way to the shrines and temples that mark the landscape (Seth, 1978). “The faithful walk in hope of achieving release from all tribulations and attaining the highest degree of salvation” (Bagri & Kumar, 2003, pp. 96). The NDBR is home to two major shrines, which attract visitors numbering in the hundreds of thousands every year. The temple at Badrinath pays homage to Vishnu, and is considered as a part of the Char Dham, four of the most important sacred sites for Hindus. Hemkund Sahib, on the other hand, is believed to be the meditation place of the Guru Govind Singh, and is a place of great importance for Sikhs.

Pilgrimage is not the only factor influencing tourism over the centuries. The early British colonial period brought other forms of tourism, including the establishment of hill stations, which welcomed regular migration of the colonial administration and military personnel (Bhatt, 1998). The early 20th century brought trips associated with exploration, hunting and mountaineering (Gardner et al., 2002). Explorer Eric Shipton (1936, pp. 28)

describes his selection of the region as a destination in the 1930's in saying "There can be few regions of the Himalaya providing topographical problems of a more absorbing interest than that lying in the Almora and Garhwal districts of the United Provinces." As the region was home to the highest peak in the British Empire, Nanda Devi at 7,817 meters, it was a prime destination for many expeditions, not only to attempt peaks but to explore routes between numerous unexplored regions. The post-independence era saw a rush of mountaineers in the area, with numerous attempts at peaks such as Nanda Devi, Trishul, and Dronagiri (Maikhuri et al., 2000). Today, tourists continue to be motivated by a sense of exploration, seeking adventure, nature, and activities such as river rafting, trekking, mountaineering, cycling, and nature walks (Bagri & Kumar, 2003, pp. 99).

2.5.1 The Nanda Devi Biosphere Reserve

The backdrop for such adventure pursuits is the Garhwal Himalaya, a sensitive mountain environment which holds the distinction of being a biosphere reserve. Recognized federally as the Nanda Devi Biosphere Reserve (NDBR) in 1988, India's second biosphere reserve became officially acknowledged as a part of the UNESCO Man and Biosphere (MAB) program in 2004.

UNESCO (2005) describes biosphere reserves as areas of terrestrial and coastal ecosystems promoting solutions to reconcile the conservation of biodiversity with its sustainable use. Each biosphere aims to fulfill three functions, which can be considered as complimentary and mutually reinforcing, i.e.:

- "A conservation function - to contribute to the conservation of landscapes, ecosystems, species and genetic variation;

- A development function - to foster economic and human development which is socio-culturally and ecologically sustainable;
- A logistic function - to provide support for research, monitoring, education and information exchange related to local, national and global issues of conservation and development.”

(UNESCO, 2005, pp. 1).

The majority of the NDBR spreads over the Chamoli District, but also overlaps into the neighbouring districts of Bageshwar and Pithoragarh. It covers 5861 km², and has an altitudinal range of 1,800 – 7,817 meters. The reserve consists of the two core zones of Nanda Devi and Valley of Flowers national parks (a combined 712.12 km²), a buffer zone (5,148.57 km²), and a transition zone (546.42 km²). 52 villages fall within the reserve, with 47 located in the buffer and five in the transition zones (District Forest Office, 2004.)

The core zones are designated as areas for the long-term protection of landscapes, ecosystems and species (UNESCO, 2005). Activities within the core zone are restricted to scientific research and monitoring, along with regulated tourism activities. The buffer zone surrounds or adjoins to the core zones. “Activities are organized here so that they do not hinder the conservation objectives of the core area but rather help to protect it, hence the idea of ‘buffering’” (UNESCO, 2005, pp. 2). Activities within the buffer zone include “restoration, demonstration sites for enhancing value addition to the resource, limited recreation and tourism activities, grazing, etc. which are permitted to reduce their effects on the core zone” (District Forest Office, 2004, pp. 17). The transition zone allows for a wide range of human activities as it is considered to be an area of economic and social significance for regional development (UNESCO, 2005).

Given the foregoing context of the research, the central challenge to any tourism development, be it adventure-, eco- or otherwise, is to ensure balance in development so as to maximize the potential benefits and minimized potential adverse socio-cultural, environmental, and economic impacts of tourism development. This will ensure the long term sustainability of tourism development. Central to this idea is the concept of integrated and effective tourism planning.

2.6 Chapter summary

When one considers the context of the research, i.e., a sensitive mountain environment with the distinction of being a biosphere reserve, it is evident that integrated planning for tourism development is a necessary activity. This is especially pertinent since the tourism industry (be it adventure driven or otherwise) is burgeoning in India. As the mountains provide an excellent backdrop for adventure tourism activities, the area stands to become an exceptional tourism destination. Whether it be in the form EA or otherwise, tourism planning should be an activity that ensures community participation to enable the destination in becoming a pleasant place to visit. Ideally, development will take place in a manner that promotes sustainability and minimizes potentially negative socio-cultural, environmental, and economic impacts, while maximizing the benefits to the region. As Bagri and Kumar (2003, pp. 104) suggest, this will require cooperation and coordination of the public and private sectors “throughout the implementation and management process.” To this should be added the need for civic sector involvement, as the residents of the area are those who stand to be most impacted by tourism development. A first step towards such an integrated approach to planning will require the definition of roles (Bagri & Kumar, 2003).

CHAPTER 3. RESEARCH DESIGN

3.1 Introduction

The research used a qualitative case study approach, and was interactive and adaptive in nature (Nelson, 1991). The research contributes to a larger collaborative project between the University of Manitoba, the University of Winnipeg, the University of Delhi, Garhwal University and the Sha stri-Indo Canadian Institute entitled: *The Roles of the Public, Private and Civic Sectors in Sustainable Environmental Management: A Search for Balance* (Sinclair & Singh, 2003). This multi-year project is situated in the Chamoli District of the new state of Uttaranchal. The town of Joshimath acts as a service center for adventure tourism activities in the area, as well as being home to the Forest Department offices in charge of the Nanda Devi Biosphere Reserve (NDBR), where the vast majority of such activities take place. Activities for in-depth exploration were selected so that the study included sites and activities with current adventure tourism activities, and sites and activities for proposed adventure tourism activities. As such, the areas selected included the trekking route to the Valley of Flowers National Park, and the Dharasi Pass as current sites, while the trekking route to Khakbusindi, and a proposed high-altitude cycling scheme were considered as future developments. Selection of these sites/activities for study will be discussed in detail below. Methods were drawn from Rapid Rural Appraisal (RRA) and Participatory Rural Appraisal (PRA) (Chambers, 1992; Chambers, 1994), relying primarily on semi-structured interviews, and using transect walks, mapping, participant observation, and review of secondary data sources in order to enhance the reliability and validity of the data.

3.2 The qualitative paradigm

The research took a qualitative approach. Qualitative study can be defined as “an inquiry process of understanding social or human problems based on building a complex, holistic picture... reporting detailed views of informants and conducted in a natural setting” (Creswell, 1994, pp 10). Qualitative methods are well suited to addressing certain research problems. For example, the qualitative paradigm is well suited to issues where there is little known or a limited understanding of the topic (Morse & Richards, 2002). It is well suited to exploratory research, where many variables are unknown, the context is important, and where a theory base for the subject may be lacking (Creswell, 1994). As little information on the extent of adventure tourism in the region was available prior to arrival, and previous research on adventure tourism does not adequately address planning for sustainability, the qualitative paradigm provided a reasonable framework for approaching the subject.

3.3 Case study approach

As with many qualitative approaches, the case study design allows for inquiry that investigates contemporary phenomena within its real life context, especially when the boundaries between the phenomena and context are not clearly evident (Yin, 1994). Case studies are well suited to projects that are modest in scale and exploratory in nature (Rowley, 2002).

The case for this study is identified as adventure tourism activities in the Nanda Devi Biosphere Reserve (NDBR). As the case is geographically widespread, specific locations within the reserve were used for in-depth study. The service center of Joshimath was used as the base for research. It was selected as a part of the broader research

initiative to which the study belonged, and had been identified by research partners in India as a suitable area for exploration. Located in the transition zone of the NDBR, Joshimath is a popular center for pilgrimage as it falls en route to important Hindu and Sikh shrines (Badrinath and Hemkund Sahib, respectively). It is a jumping-off point for adventure activities in the NDBR, which is home to some of the highest peaks in India, along with the Valley of the Flowers and Nanda Devi National Parks. Joshimath is home to the offices of the state Forest Department in charge of planning for the NDBR, as well as to the offices of numerous tour operators providing services for adventure tourism activities in the area.

Outside of Joshimath, where the adventure activities take place, sites and activities for in-depth exploration were selected after exposure visits to numerous villages, and in discussion with state officials and tour operators. The communities in proximity to the selected routes were chosen to represent the civic sector in the study as they are most likely to be impacted by adventure tourism activities and development. The communities are the places the tourist will actually visit on their way to pursue adventure. The communities selected for study are not intended to represent all of the communities in the biosphere reserve, but rather to demonstrate the diversity of villages living within the biosphere reserve. While the communities share a common culture and geography, they are faced with different realities and are involved in tourism in different ways.

At the onset of research, it was hoped that one location with current adventure tourism activities and one location with potential for adventure tourism development could be identified. In fact, three trekking routes and one proposal for high-altitude cycling presented themselves as reasonable options for exploring the current and

potential extent of adventure tourism activities in the region. Generally speaking, routes and activities were selected to help understand the current state and potential of adventure tourism in the area. Two routes/activities were selected that reflected the current state of adventure tourism, and two that helped to present some of the potential in the area. Two of the routes/activities fall in the Niti Valley, and two in the Bhyundar Valley, which allowed for exploration of areas that share common features, but many differences as well. All of the areas selected for study were reasonably accessible, which proved to be a consideration as road conditions were less than ideal and landslides were a regular occurrence. The communities involved in the project were within a 1 – 5 hour hike from the closest access road. Other routes or activities in the area did not provide similar levels of accessibility. As Bernard (2002, pp. 189) writes, “There is no reason to select a site that is difficult to enter when equally good sites are available and easier to enter.” Additionally, the communities involved in the areas/activities selected were willing to participate in research activities.

3.3.1 Valley of Flowers

This route was selected based on its popularity. It is the most heavily used trekking route in the region due not only to the attraction of the Valley of Flowers National Park, but also as it is the route to an auspicious Sikh shrine, Hemkund Sahib. The route is managed in cooperation with the Forest Department and a local Eco-Development Committee (EDC). It is also the only route in the area in which private enterprise other than tour operators plays a role.

The Valley of Flowers was brought to western attention by Frank S. Smythe, a British explorer, who came upon the valley after reaching the summit of Mount Kamet in

1931. So enchanted by the valley was Smythe, that he returned in 1937 to spend two months mountaineering in the area, and enjoying the splendours of the valley. During that time, he penned *The Valley of Flowers* which first brought the area to the attention of nature lovers from around the world. While others had explored the area earlier, Smythe is still credited with making the valley famous with his book, which poetically describes the valley as follows:

“Here flowerful pastures with clear running streams are set against silver birches and shining snow peaks. Dew lies thick on the flowers, birds sing in the surrounding forest and the air is pure and charged with floral smells. Hidden from the probing eyes of civilisation, this valley had been known to the inhabitants as the Bhyundar Valley, the playground of fairies and nymphs” (Smythe, 1947, pp. 14).

Smythe, however, was not the only one out to explore the valley at the time. In the early 1930s, a team of Sikh surveyors had arrived in the area, in search of the meditation place of the Guru, Govind Singh. The location was determined to be at Hemkund Sahib, a high altitude lake adjacent the Valley of Flowers. A temple was established near the lake, and a Gurudwara constructed in Ghangria, the village 6 km’s below, which also acts as an access point to the Valley of Flowers.

Thus the trekking route to the Valley of Flowers is not only used by tourists, but by thousands of Sikh pilgrims on their way to Hemkund Sahib. As Table 6 demonstrates, the number of visitors making their way up the valley has increased substantially in the last ten years, with the arrivals at Hemkund numbering in the hundreds of thousands, and the visitors to the Valley of Flowers numbering in the thousands.

Year	Arrivals at Hemkund	Arrivals at V of F
1993	12,625	2204
1994	10,200	1495
1995	15,365	1090
1996	16,320	1473
1997	72,191	1305
1998	101,476	461
1999	109,298	777
2000	327,550	1094
2001	210,980	2944
2002	340,578	4004
2003	388,108	4493

Table 6 Arrivlas at Hemkund Sahib and Valley of Flowers (Tata Consultancy Services, 2003).

As the route is heavily used by both adventure seekers and pilgrims, it has also become a route that is managed to a greater extent than any other route in the area, making it an interesting case for study. It also provided insight into attempts at meaningful community participation, in the sense that every household in the valley has at least one family member represented on the local EDC.

3.3.2 Dharasi Pass

This route was selected as it provides both its similarities and differences to the route to Valley of Flowers. While both routes enter national parks (Dharasi enters the Nanda Devi National Park) established in 1982, and are thus subject to the same restrictions, Nanda Devi National Park was closed until recently to all human activity (aside from government monitoring), unlike the Valley of Flowers which still allows for tourist day-visits. As such, the local communities not only lost a source of income from

tourism, as the area was once the hub for expeditions to Nanda Devi, but also lost access to areas they traditionally used for grazing and collection of medicinal plants.

The Dharasi Pass is a route that has only been re-opened for trekking in the last two years. Located in the Niti Valley, the Dharasi Pass is the only trail which enters into the Nanda Devi National Park, considered as one of the core zones of the NDBR. Meaning the 'bliss-giving Goddess', Nanda Devi is worshiped by the people of Garhwal and Kumaon alike. The inhabitants of the area are mostly Bhotiya, an Indo-Tibetan people that have made their homes in the high Himalaya for centuries (The Nanda Devi Campaign, 2004). It is also where the Chipko movement originated, in 1974, when a group of women from Reni village, led by Gaura Devi, stood up against the men who had come to clear cut the forest. "News of this successful stand spread to other communities throughout (Uttaranchal), putting Chipko firmly on the map as one of the first modern day environmentally-inspired uprisings of the poor" (The Nanda Devi Campaign, 2004, pp. 8).

The park is home to the second highest peak in India, Nanda Devi, at a height of 7817 meters. The peak has been closed to expeditions for the vast majority of its mountaineering history, since the first ascent by H.W Tilman and partner N.E. Odell in 1936. An early account of exploration describes Nanda Devi and its surrounding as follows:

"Here was a mountain whose summit was the highest in the British Empire. For centuries it has inspired worship and propitiatory sacrifice as the 'Blessed Goddess' of Hindu philosophers and scribes. For more than fifty years it has been the inaccessible goal of explorers who, attracted by the impregnability of its surroundings, had failed at repeated attempts to reach even its foot, the reason being that around the 25,600 foot mountain itself stretched a huge ring of peaks,

more than thirty of them over 21,000 feet high, that constituted themselves unrelenting guardians of the great mountain and defeated any penetration” (Shipton, 1936, pp. 29).

Described by author Bill Aitken (1994, pp. 12) as “scintillatingly beautiful from any angle,” Nanda Devi experienced its peak of mountaineering expeditions between 1974 and 1982 with 15 expeditions making attempts at the peak. Some estimate that during this period, 4000 visitors were entering the area each year (The Nanda Devi Campaign, 2004), while others assume that when mules were included, close to 10,000 bodies were likely to have arrived at base camp (Aitken, 1994). When the area was officially declared a national park in 1982, it was closed to all human activity other than research and monitoring. The closure had a significant impact on the villages in the region, which had not only become engaged in the tourism industry, but who also used the area for grazing, the collection of plants, and for fuel wood.

In 1998, the communities living closest to the national park, after years of pleading their case, decided to take action. In what was referred to as the Jhapto-Cheeno movement, an estimated 600 people peacefully entered the core zone, picked flowers, and voiced their desire for the restoration of their traditional rights to the area. “The villagers vowed to continue this Jhapto-Cheeno (swoop and grab) movement and present their case in various platforms until the government recognized their claims” (The Nanda Devi Campaign, 2004, pp. 11). The state Forest Department responded by announcing that a section of trail, the Dharasi Pass, was open for regulated tourism. A timeline of events, as provided by the Nanda Devi Campaign (2004), can be found in Appendix B.

The route provides a nice contrast to the Valley of Flowers for several reasons. First, it is a trail that has a rich history, and yet it is a route that has only been recently reopened for use. As such, trekking activities are being monitored by the Forest Department, although the volume of visitors is substantially less than before the closure. Additionally, the route is far more rugged and remote than the one to the Valley of Flowers, providing an opportunity to explore routes that have a different quality as far as adventure is concerned. Finally, it is a route where the development of tourism is very much desired, and yet the benefits of such activities are only slowly starting to come.

3.3.3 Khakbusindi

While technically not a new route, the trek to Khakbusindi, a high altitude lake, was selected for study as a future route. The trail begins close to the village of Byundar, across the Laxman Ganga River. The route, which covers alpine meadows, dense forest, and glacial moraines, leads to a high altitude lake, which one first views from a ridge at the highest point of the trek, at 5087 meters. It is an area steeped in mythology, and is said to be the location from the Hindu epic the Ramayana where an eagle comes to reflect on the teachings of Vishnu for his emancipation. In doing so, the eagle collects a number of listeners in the form of crows, and as such, the area is sometimes referred to as the place where crows go to die. Both the eagle and crow are said to be represented in one of the mountain faces passed en route.

The area is used by local shepherds and a handful of trekking parties each year, and has been identified by the local community as an area with potential for development. The trail has been identified by the local EDC as a route with great potential for attracting adventure seekers. Development ideas include creation of a

defined trail, switchbacks, and permanent structures like bridges, crates to divert a river, and shelters. These proposed developments provide a reasonable fit with the research objective of considering environmental assessment as a planning tool.

3.3.4 High-altitude cycling

An activity identified by the Forest Department, a tour operator, and a non-governmental organization (NGO) as having great potential in the area, high-altitude cycling was explored as a future activity. The route, which could begin at much lower elevations or in Joshimath itself, would travel the road to Malari, passing numerous villages along the way. While data on the subject was limited, the development of such an activity provides insight into how activities are selected, what considerations are given to development, and who is involved in the process.

The proposed route for high-altitude cycling travels along the only road in the Niti Valley. The road follows the Dhauliganga River and passes through numerous villages, including Topovan, Reni, Lata, Suraitota, and Jumma, ending finally in Malari. The route provides a gradual ascent, and the tourist can expect to see stunning views along the way, including glimpses at the famed Nanda Devi. The tourist would also face the challenge of cycling down a road that is beleaguered by landslides, the subsequent clearing of landslides, and on-going construction as the road is being widened.

3.4 Rapid Rural Appraisal and Participatory Rural Appraisal

Using a qualitative approach to consider the various sectors in the study, methods were drawn from Rapid Rural Appraisal (RRA) and Participatory Rural Appraisal (PRA). RRA is an approach for developing qualitative understanding of a location. It has the key features of being appropriate in the face of time constraints, being iterative in nature, and

producing reliable results within short-term time frames (Beebe, 1995). PRA has evolved from the techniques associated with RRA, and is described as “a growing family of approaches and methods to enable local people to share, enhance and analyze their knowledge of life and conditions, to plan, and to act” (Chambers, 1992, pp 953). The primary differences between RRA and PRA are summarized in Table 7.

Nature of process	RRA -----	PRA
Mode	Extractive -----	elicitive ----- sharing ----- empowering
Outsider’s role	Investigator -----	Facilitator
Information owned, analyzes, used by	Outsiders -----	Local people
Methods used	Mainly RRA + PRA -----	Mainly PRA + RRA

Table 7 The RRA-PRA continuum (Chambers, 1994).

Since the scope of the research was not geared towards the goal of empowerment, due largely to time constraints and the inexperience of the researcher, the research drew primarily on the RRA approach, i.e., it was extractive in nature and the researcher remained in the role of investigator. However, the research did attempt to embody the principles to which both RRA and PRA subscribe. These principles are as follows:
 Optimal ignorance: knowing what is worth knowing; knowing enough to serve the purpose; not trying to find out more.

- *Seeking diversity*: focusing on the analysis of differences as opposed to seeking out the average. This was applied in both data collection and analysis.
- *Triangulation*: systematically using a range of methods, types of information, and cross-checking data to enhance reliability and validity. This included interviewing key informants repeatedly to confirm information, interviewing various sources to

- verify answers, reviewing secondary sources of data (e.g. maps, statistical reports, government policies)
- *A reversal of learning*: learning from rural people, gaining from local, physical, technical, and social knowledge.
 - *Offsetting biases*: being relaxed and not rushed; listening not lecturing; seeking out marginal groups; etc.
 - *Rapid and progressive*: having flexibility in the methods and adapting the process to meet the required needs. It is iterative in nature and allows for progressive learning.
- (Beebe, 1995; Chambers, 1992; Mukherjee, 1993).

3.5 Research methods

To enable cross-checking of data and triangulation, a variety of methods were selected to help achieve the research objectives. Drawing from the broad range of RRA methods, the study relied on semi-structured interviews, transect walks, mapping, participant observation, and review of secondary data sources as methods for data collection. The research also took an interactive and adaptive approach (Nelson, 1991). This approach allowed for alterations to the originally proposed research design that considered the context and real-life situation in which adventure tourism was studied. The interactive and adaptive approach is able to respond to, among other things, the complexity and dynamic character of the field and the unevenness and variety of available information (Nelson, 1991). For example, the roads to the villages themselves often proved to be the biggest obstacle to accessing respondents because landslides were common. Visits to villages were often rescheduled, required multiple visits, and took

place at all hours of the day so as to be able to access individuals who were often busy with other work. Numerous respondents who were identified as important to the research were interviewed away from their home villages because the best way to access them was waiting for them to be available in Joshimath.

Another example of the interactive adaptive approach is demonstrated in the inclusion of women in the study. Initially, it was anticipated that female participation in the adventure tourism activities would be limited, but numerous respondents made reference to the important role that women play within the community, as well as the link that they have to conservation of resources as their work is integrally related to the environment. As such, their representation within the civic sector became an important element of the research, and in fact it was determined that they are involved in adventure tourism, albeit most often in an indirect way.

3.5.1 Semi-structured interviews

Semi-structured interviews are a vehicle to learn how things work in communities (Russell & Harshbarger, 2003). It is an open-ended approach to interviewing, conducted in an informal manner, which follows a structure but allows for queries to emerge according to responses received. Interviews were conducted at the convenience of the respondents, often taking place in their homes or in their shops. Respondents were always assured that their answers and opinions would be kept confidential, and that there were no incorrect answers to any of the questions. Interviews could be stopped at any time, and the respondent could refuse to answer any of the questions. When necessary, a translator was provided.

Purposeful sampling was used to identify respondents in the initial phases of the research. Participants were identified based on certain characteristics (Morse & Richards, 2002), namely, their involvement in the adventure tourism industry. Tour operators and state officials were the first consulted, and were used in a snowballing technique to identify future participants, i.e., respondents were asked to identify other individuals who could be important to the research (Morse & Richards, 2002). Snowballing stopped when the recommendations of individuals for future interviews became repetitive (i.e., they had already been identified and/or interviewed) (Babbie, 2001).

Respondent selection was further restricted by the geographic limitations of individuals identified who resided beyond the boundaries of the Chamoli district, in which the NDBR is located. For the most part, very few people were identified beyond the geographic boundaries of the study. However, over time it became clear that certain individuals based in the state capital of Dehra Dun would be critical to the body of data being collected. Thus, a research trip to the capital was conducted, and numerous state officials and an NGO were interviewed.

Semi-structured interviews also helped to identify key informants (Chambers, 1994a; Mukherjee, 1993). Key informants are described people who are easily approached, who understand the information required, and who are glad to provide or find the information sought (Bernard, 2002). Such informants were identified in each community, as well as among tour operators and state officials. Interviews with key informants took place over a series of meetings, so as not to impose upon the respondent, and to allow for the verification of information from previous meetings.

This approach to sampling allowed for a diverse body of participants to emerge. Respondents included state officials, tour operators, guides, private enterprises involved in activities on one of the routes, community leaders, women, and youth with the potential to be involved in adventure tourism activities. All respondents were willing to take the time to reflect on the phenomena of adventure tourism and participate in research activities.

By interviewing members of each of these groups, the full range of approaches to adventure tourism planning and implementation and the desires of the people for adventure tourism development were revealed. A total of 61 people were formally interviewed. In addition, casual conversations that provided some insight into the adventure tourism industry were considered in the field notes. The breakdown of formal interview respondents is as follows:

Respondent affiliation	Number of respondents
Forest Department	9
Tourism Department	4
Tour operators and guides	12
Private enterprise aside from tour operators	5
Community members from Dharasi Pass	15
Male	7
Female	8
Community members from the Valley of Flowers	13
Male	6
Female	7
NGOs	3
TOTAL	61

Table 8 Breakdown of respondents

With the exception of three Forest Department officials, all Uttarakhand Tourism representatives, and one NGO who all have their main offices in the state capital of Dehra Dun, all of the respondents were based within the study area. More women than men were interviewed, not because they were more integrally involved in adventure tourism, but because it was at times difficult to solicit meaningful information from them and seeking more female respondents provided a more complete picture. Finally, at least one representative from each of the tour operators registered with the Forest Department was consulted.

By interviewing individuals from the private, public and civic sectors, the roles of each group in adventure tourism were identified, and different perspectives on the industry were revealed. The various individuals also helped in the identification of adventure tourism sites (current and potential) for in-depth examination. A sample of the interview format can be found in Appendix C. For the most part, a less structured format was followed, allowing for questions to emerge from the information that was being offered. The questions followed the themes of the roles of the public, private, and civic sectors, along with the respondents' vision of the future. With key informants, questions were often geared towards a specific topic, such as details of trekking routes, or considerations for management. A translator was provided when necessary. Interview responses were recorded by hand, and later re-written to help fill in the gaps and organize the information.

3.5.2 Mapping

Maps were derived from two sources. First, existing maps of the area were provided by tour operators and community members. Such maps were used in combination with local input to determine where adventure tourism activities (current and potential) take place. These maps were supplemented with maps produced in diagramming activities with local people. Mapping exercises were conducted for the three trekking routes by consulting with key informants. Mapping often started by looking at the maps I had acquired from other sources, and then asking people for their input. In most cases, this would lead to the creation of new diagrams with local perceptions, place names, and information related to trekking through the area. Mapping and diagramming were identified as essential components of PRA and RRA as they allow for an in-depth interpretation of rural realities by local people, while allowing those who may not have high literacy levels to contribute. It allowed for a rich addition to the body of data on the trekking routes selected for study. The information solicited from these exercises allowed for a better understanding of the routes selected, along with creating a forum for discussion with the respondents. The fact that it proved to be an enjoyable activity for all those involved also helped in establishing rapport with the respondents.

3.5.3 Transect walks

These are systematic walks with local people through an area while observing and discussing the different aspects of land use and/or agro-/ecological zones witnessed en route (Mukherjee, 1993). As all of the villages involved in the study were not located on the road, transects took place in order to get to the villages themselves. Questions about land use were fielded by locals who joined en route, by locals working along the trails, or by the translator. Transect walks also took the routes of adventure tourism activities.

They were conducted in locations where adventure activities such as rock climbing or paragliding had potential, where campsites for expeditions existed, and along two of the three trekking routes under examination. (The Dharasi Pass was not trekked due to an early snow fall, which made the route inaccessible.) The findings of transects were used to gain a better understanding of adventure tourism activities and their locations, to supplement maps and diagrams, and to understand current patterns of land use (Chambers, 1994).

3.5.4 Participant observation

Participant observation is a strategy that facilitates data collection in the field. It consists of establishing rapport in a new community, learning to act so that people go about their usual business, and taking time away from the research setting to intellectualize what has been learned, and write about it convincingly (Bernard, 1988). Participant observation allows the researcher to gain an intuitive understanding of a situation, which in turn allows him/her to speak with confidence about the meaning of data. It helps one to understand the meaning of one's observations (Bernard, 1988).

Participant observation was used as a method to build rapport with tour operators and in the local communities alike. As Bernard (2002) writes "presence builds trust," and this was a strategy that proved to be effective. With the tour operators, countless hours were spent just "hanging out" in the office. While not spending time on the research questions, this time allowed for conversations about how the guides gained experience, about favorite activities and routes, about problems being faced in the industry, and even just about life in Garhwal Himalaya. By the end of the fieldwork period, I was being included in industry activities, such as meetings to address concerns and consider actions.

Likewise, simply being present allowed for the establishment of rapport in the villages. As language was more of a barrier in the villages than with the tour operators, this often consisted of simply trying to partake in village activities. From attempting to pound grain, to helping with meal preparation, or to buying bangles from the door-to-door jewelry salesman with the women, I became a recognized face in the communities and felt most welcome upon arrival.

Additionally, I assumed the role of participant observer in adventure tourism activities. This consisted primarily of trekking, the most common activity in the area, but also included attempts at rock climbing. Outside of the case study area, I also tried whitewater rafting with a tour operator with associates in the study site, along with paragliding. Partaking in such activities allowed me to build rapport with the tour operators and guides. It also allowed for insight as to how the activities were structured, what considerations went into planning, and how clients were managed.

Observations were recorded in a number of ways. First, field jottings were used to make brief notes and reminders during casual situations. The jottings provided triggers to recall details when making complete notes was not an option. Second, a set of field notes was compiled. Field notes were completed on a daily basis and included notes on the location, weather conditions (which sometimes affected research activities), road or trail conditions, and reflection on interviews or activities completed during the day. Field notes also included thoughts on some of the challenges to data collection and initial thoughts regarding the analysis of the data. As the body of data grew and my understanding of the subject increased, the field notes began to record personal views, opinions, and feelings about the study.

3.5.5 Review of secondary data sources

Beginning with the literature review in Chapter 2, the research included reviews of files, reports, maps, photographs, policies, and books related to the research topic. These sources added to the body of data collected thus increasing the reliability and validity of the information by providing options for triangulation and verification. A list of documents retrieved that pertain to the study can be found in Appendix D. The most relevant documents were also included in data analysis.

3.6 Threats to validity and reliability

While a combination of methods allowed for triangulation and produced a set of data that meets Chamber's (1997) description of reliability and validity, where validity refers to the closeness of a finding to a physical reality, and reliability refers to the constancy in findings, threats to validity and reliability were nonetheless identified in the field. The circumstances of the study were often considered, and the identification of threats and methods to control or eliminate them were undertaken (Gibbs, 2002). The two issues likely to impact the validity and reliability of the data were the use of a translator and the public nature of the research.

3.6.1 Use of a translator

While it was possible to conduct many research activities in English (many of the respondents were capable of understanding and responding to questions without assistance), a translator was often employed to assist in the research. As the availability of fluent English speakers was limited (most were otherwise employed), the individual most often used proved to be both an asset and a detriment to the research process. The translator's assets are perhaps best described by author Bill Aitken, (1994, pp. 63), who describes him as "charming, cheerful, and possessing the untroubled conscience of an

ardent capitalist, (his) ingenuity could provide a way around most problems.” The translator was excellent at identifying key informants and providing insight into local institutions and traditions. His knowledge of adventure tourism was also extensive, as he was one of the major players in the industry in the late 1970s and early 1980s. This understanding of the situation also proved to be detrimental as he was always willing to provide answers to the questions without referring to the respondent being interviewed. Coupled with what Aitkens (1994, p. 63) describes as “his reputation for turning water into wine,” the translator was at times less than ideal.

In response to these challenges, the translator was given an opportunity to respond to the research questions himself, and was in fact among those identified as a key informant. Additionally, upon the commencement of all interview sessions the translator was reminded that the research was looking only for the opinions of the respondents. If it was suspected that the answers were not coming directly from the respondent (my grasp on Hindi improved over time), the translator was redirected to ask the question again and give only the respondent’s answer.

3.6.2 Public nature of the research

As the expression goes, ‘nothing attracts a crowd like a crowd’ and such was often the case while conducting research activities. Whenever possible, interviews were conducted privately, but the research would often draw a handful of followers, keen to see what the foreigner was doing. As the comfort of the respondent was critical, and it was felt that answers were most honest when the respondent could speak freely, this was at times an issue. There were two situations where this became a concern. First was on the Valley of Flowers route, where an active EDC seemed eager to ensure everyone was

speaking positively about its activities. In some cases, interviews were cut short and recommenced when a more private interview could be conducted. In one case, a visit to a village was scheduled intentionally when the chairman of the EDC was away. The second situation where privacy became an issue was when interviews with women were taking place, and many husbands or fathers wanted to assist the women with their responses. This problem was usually rectified by instructing the man that I was only interested in the woman's responses and that if he had input into the subject that it would be considered and recorded later. In most cases, the men got bored and left. Rigor, or quality assurance, was further ensured through iteration, observation and exercising reflective judgment.

3.7 Data analysis

Data analysis began in the field and was iterative in nature. Upon completion of each interview (or each day's interviews), the data were organized into themes, such as the respondent's current role, their perspectives on the other sectors, and comments about the future. The data were organized and edited into what Marlow (2005) describes as "accessible packages". Field notes were completed to include any observations about the respondent, as well as key insights that may have been gained in the course of the interview. Analysis remained at a very basic level, until I returned from the field.

After transcribing all of the data from interviews, field notes, and selected government documents, analysis occurred with the assistance of QSR NVivo software. Fundamentally, NVivo does two things: first it supports the storing and manipulation of texts and documents and second, it supports the creation and manipulation of codes (Gibbs, 2002). While no software can replace the value of becoming very familiar with the data (through reading and re-reading of texts), NVivo makes the process of retrieving

information much quicker, and as Gibbs (2002, pp. 105) suggests, it can make qualitative analysis “easier, more accurate, more reliable, and more transparent.” The software was helpful in completing content analysis, i.e., classifying the textual material provided in interviews, field notes, and various documents, and reducing it to more relevant, manageable bits of data (Weber, 1990).

NVivo allows data to be coded in two basic forms: as free nodes and as tree nodes. Free nodes stand alone, while tree nodes are capable of having several levels, so that they can be grouped into themes and sub-themes. Coding began by identifying the most basic categories, such as “the role of the Forest Department” or “the role of the tour operators” in the form of free nodes. As the data were read and re-read, free nodes became tree nodes, so as to include the various subsets of what one player’s role might include. This was accomplished by considering all of the responses from respondents from a given agency (e.g., responses from the Forest Department), grouping of all roles into categories based on similarities in activities, and labelling the category. As often as possible, terms provided by the respondents’ themselves were selected to describe a set of activities, but in some instances, when a generalized term for a group of activities was not offered, they were labelled at my discretion. Trees would also take other respondents’ perspective on what they thought another’s role to be.

Take for example, the tree node to describe the Forest Department’s activities. It began with a basic description of all activities as described by Forest Department employees, which were then categorized based on similarities. Descriptions provided by other respondents were also coded, and then broken down to similar categories, so as to

give the complete perspective on what role the Forest Department played. A diagram of the tree node to describe the role of the Forest Department is provided in Appendix E.

Several steps were taken to ensure thoroughness in analysis. First, text searches were completed on a frequent basis to ensure that all responses regarding certain themes were coded. For example, when compiling information about environmental assessment, searches for terms such as ‘environmental assessment,’ ‘impact,’ ‘carrying capacity,’ and ‘monitoring’ were completed. NVivo would provide the location of the document from which the text was retrieved. The text would then be coded according to theme. Such searches would be included in the daily record of analysis activities. This daily log included a summary of the tasks completed, thoughts about the data and emerging themes, and a list of things to do for upcoming analysis. It was reviewed regularly for thoroughness and to ensure that all previous thoughts were considered prior to the commencement of writing.

After completing the first rounds of coding, the data were compiled into tables for ease of access. Tables reflected the emerging themes and allowed me to look at all of the data on a given subject for further break-down. When it seemed as though all of the sub-themes of a given node were identified, text searches were completed to ensure thoroughness. More detailed tables were assembled to reflect the number of people who made mention of any given subject. Such tables can be found throughout Chapters 4 and 5. While the numbers in the tables are indicative of the number of individuals making comments about a given subject, they are not meant to set priorities for activities in the industry. The responses simply illustrate where the focus of certain stakeholders lies, as well as indicating where there is no focus through an absence of responses.

During the process of writing the thesis, a distinction between comments that were descriptive versus comments that were prescriptive had to be made, so as to distinguish between the current state of adventure tourism versus the considerations for the future. This was accomplished based on the choice of words of the respondent. For example, the response of “The Forest Department sets rules and regulations” would be considered as a descriptive comment, while “Rules and regulations for tourism should exist... Rules for the tourism industry should be determined locally” were considered as prescriptive. At times, determining whether a comment was prescriptive was accomplished simply based on the question to which the respondent was answering, such as responses to questions about the future of adventure tourism.

Analysis was completed when all of the interview responses fell into existing categories (Tutty et al., 1996). NVivo also assisted in this process, as all of the codes assigned to any given document can be browsed with the right command. While categories were certainly revised and re-organized during the process of writing, the information to satisfy the basic research objectives had been compiled. In fact, more codes were developed than the research objectives required, and as such, some of the information retrieved was not included in the summary.

3.8 Reflections on the research process

For the most part, the research methods selected for use proved to be suitable for the research. Interviews provided the best source of data, while activities such as transect walks allowed for informal discussion with respondents and an understanding of their way of life. Mapping proved to be a most enjoyable activity, and while it provided only limited insight into the research subject, it was an excellent way to build rapport. Rapport

was also built through the consuming of multiple cups of chai (tea) – a most basic gesture of hospitality.

What could have proved to be useful was establishing the daily time table of the various respondents, as well as a seasonal calendar of activities at the onset of research. Doing so would have prevented wasted time trying to find jeeps headed up the road, making multiple visits to access the women, and feeling rushed at the end of the fieldwork period as villagers were busy with the harvest and migration. The completion of such activities would not have provided data that enhanced the study, but rather would have served logistic function to assist the research process. It would have also allowed for better scheduling of adventure activities which proved to be difficult later in the season as snowfall became a factor.

CHAPTER 4. ADVENTURE TOURISM IN THE NANDA DEVI BIOSPHERE RESERVE

4.1 Introduction

This chapter describes the current state of adventure tourism in the Nanda Devi Biosphere Reserve (NDBR). It discusses the range of activities available as well as what considerations are made in determining where such activities take place. It describes the current roles of the public, private and civic sectors in the adventure tourism industry today, as well as evaluating the current level of public participation. It summarizes each of the player's roles, along with presenting a diagram to depict the complex web of relationships that exist among the various players. The chapter concludes by identifying how the current state of adventure tourism in the NDBR compares with the literature.

4.2 Adventure tourism in the Nanda Devi Biosphere Reserve

Adventure tourism has existed in the region since the period of British exploration, as is reflected in the history of the current routes selected for study. In recent years, the industry has witnessed growth, not only in terms of the number of tourists arriving, but in the range of services being provided. The tour operators considered in the study have their offices in Joshimath, a town located within the transition zone of the NDBR. The vast majority of activities take place within the buffer zone, and limited trekking activities occurring in the core zones. As the vast majority of activities take place in the NDBR, they are monitored and governed by the state Forest Department. The adventure tourism season runs from May through November, with a considerable lull

during July and August, when the monsoon brings heavy rainfall and the associated landslides to the region.

4.2.1 Activities available

The Government of Uttarakhand (2004) lists 83 peaks as open for mountaineering in the state. Thirty of these peaks are identified as having Joshimath as the check-in location for expeditions. The District Forest Office includes 59 routes in their list of options for trekking and mountaineering, 39 of which have Joshimath as the check-in point. Forest Department statistics show that in 2003, a total of 200 groups went trekking in the NDBR, with six groups considered as mountaineering expeditions, and a total of 2229 visitors, not including arrivals to the Valley of Flowers.

In the NDBR, tour operators are required to register with the District Forest Officer (DFO), which entails providing a list of all guides, porters, mule men, and helpers used during the season, along with a 1000 rupee deposit for each trekking season that to ensure compliance with the rules set by the Forest Department. There are currently 11 tour operators registered with the DFO, providing a wide range of services. A summary of the services available is provided in Table 4.1. All of the tour operators can provide services for trekking, and the majority can offer skiing, an activity which occurs in the off-season at the ski resort of Auli, located 14 kilometers from Joshimath. Other than rare exceptions, activities like rafting and paragliding do not actually take place in the NDBR, and are contracted out to other operators outside of the district. All adventure activities that take place in the reserve require the permission of the DFO.

Services	Number of Tour Operators
Trekking	11
Skiing	8
Mountaineering	6
Rock climbing	3
Rafting	2
Cycling	1
Paragliding	1

Table 9 Services available to tourists

Trekking is by far the most popular activity in the area, as was indicated by the responses by the tour operators and in the secondary data sources retrieved about adventure activities in the area. There are numerous routes for adventure seekers to choose from. Many routes, such as the Kauri Pass, can be altered to suit the needs of the tourist in terms of duration of the trek, use of mules, use of porters, and start and end points. Many tour operators are also able to provide a range in prices to suit a variety of tourist budgets – from deluxe packages including a variety of food options, superior equipment, and support staff such as cooks, to packages for the budget traveler who may want to carry the majority of gear themselves, eat basic food, and do not require more than a guide. According to Forest Department regulations, tourists are required to travel with a guide and register their itinerary at the district forest office, but some tourists have been known to forgo this formality and attempt the treks at their own risk.

Many tour operators are open to exploring new routes with clients, although this is often based on the tourist having some level of experience or expertise in climbing. Such expeditions would be carefully planned by the tour operator and the client, and involve a higher degree of risk than trekking frequently used routes. Similar considerations would be given to mountaineering expeditions, which require the

permission of the Indian Mountaineering Federation (IMF), along with the payment of peak fees. Popular summits in the region include Kamet (7756 meters), Changabang (6864 meters), Mana (7273 meters), Trishul (7045 meters), and Dronagiri (6489 meters), to mention a few. Most people will also attest to the fact that there are still dozens of unnamed and unclimbed peaks that have potential for mountaineering purposes.

Downhill skiing and snowboarding are considered as options for the off-season, and the ski hill at Auli offers one of very few chair lifts in India. It is a popular location for such activities, and there is the potential to hike beyond the area serviced by the lift to a high altitude meadow named Gorson, where skiing and snowboarding are also possible. The ski hill at Auli has also been identified by some tour operators as a location with the potential to develop paragliding.

In terms of the other adventure activities listed, they occur only on rare occasions at present. For example, rafting trips and rock climbing are activities pursued by the Indian army in the area. Likewise, the occasional rafting expedition has been mounted by Uttarakhand Tourism that travels from Topovan (14 kilometers outside of Joshimath) all the way to Rishikesh, several hundred kilometers away. Cycling expeditions have also occurred in the region, but on a very limited basis and only at the request of tourists who are more likely to be making arrangements with outside tour operators. While the area certainly provides an ideal backdrop for a variety of adventure tourism activities, at present trekking is the mainstay of the industry.

4.3 Determining where activities take place

The current process for determining where adventure activities take place lies largely in the hands of the tour operators and the Forest Department. There is no

definitive process for how sites for activities or new trekking routes are selected, and such decisions are not, at present, subject to any process of approval.

The tour operators cite several considerations as important in selecting activity location. The first of these considerations are related to aesthetics, with items such as opportunity to see flora and fauna, scenery, and good view points as important. The second important set of considerations related to technical aspects, such as availability of camping sites, access to water, and accessibility in terms of using mules and porters. Locations are scouted by experienced guides, with the use of maps for basic guidance along with the expertise of locals familiar with the terrain.

The Forest Department is also in the position to select sites for activities, although the approach is different than that of the tour operators. Their decisions are based largely on the demand of communities in the NDBR, and are determined by a process of informal consultation and on-going dialogue. If suitable locations and activities present themselves, the District Forest Officer has the authority to implement a project as he sees fit. Certain activities, such as high altitude cycling, have been identified by the department as having potential and are thus included in the list of activities worth pursuing.

4.3.1 The legislative framework

All adventure activities and decisions regarding their implementation are governed by a variety of rules and regulations. This includes numerous pieces of legislation, along with a series of regulations and guiding documents developed by the Forest Department. These policies provide the basis for activities in the region, and also

help to identify which government agencies end up being most involved in the development of adventure tourism activities.

The first piece of legislation to consider is the Indian Forest Act (1927). While the Act was introduced by the British government on the assumption that local communities were incapable of forest management, and has since been amended dozens of times, it remains the piece of legislation that enables the Forest Department to control many activities in forested areas. This is especially pertinent in Uttaranchal, where 65% of the area is considered as forested. The Act defines the role of the state and its appointed officers, and enables the establishment of rules as the forest officer sees fit to uphold the provisions of the Act (section 76, Chapter XII). In 1980, the Indian Forest Act was amended by the Forest Conservation Act, which recognized that deforestation had been taking place on a large scale in the country causing widespread concern. Its purpose was to ensure that areas considered as reserve forest (i.e., under the complete control of the state government) could not be demarcated, and reinforced the authority of the Forest Department to implement rules to govern activities in such areas.

The Wildlife Protection Act (1972) is the second piece of legislation to consider, and also provides the Forest Department with authority over activities in certain areas. In this case, the authority arises because the core zones of the NDBR are considered as national parks. The declaration of a national park is addressed in section 35, which aside from laying out the reasons for the establishment of such a park, extinguishes the rights of the public in relation to any land in the area being declared. Essentially, it gives authority over the land to the Forest Department, under the authority of a state-level Chief Wildlife Warden, who is responsible to the central government. As such, activities

within the core zones fall under the jurisdiction of the Forest Department, which allows entry only for regulated tourism activities, research, and monitoring purposes.

The final piece of legislation with the potential to impact tourism development is the Environment Protection Act (1986). The Environment Protection Act (1986) is the legislation that enables the EA process. For environmental clearance to be granted, an environmental impact assessment is required, as per the Environment Impact Assessment Regulations (1994). According to section 5.8, prohibition and restriction on the location of industries may occur if the activities are located in proximity to a protected area (i.e., national parks, game reserves or closed areas notified under the Wildlife Protection Act (1972)).

In terms of tourism activities, the only projects that require environmental clearance are, according to Schedule 1, point 18, “projects between 200-500 meters of high water line and at locations with an elevation more than 1000 meters with an investment of more than 5 crore (rupees)” (Environment Impact Assessment Regulations, 1994). While all of the activities taking place in the NDBR occur above the 1000 meter line, at present none are valued at 5 crore rupees (i.e., 5 million rupees, or at the time of the study Canadian \$142,857), so environmental clearance has not been required for tourism developments in the NDBR.

The Forest Department has also developed a series of regulations and guiding documents that have the potential to impact adventure tourism activities. The first of these documents is the *Landscape Management Plan* (Banerjee, 2003), which addresses many of the planning considerations for the NDBR until the year 2012. The aims of the plan include measures ensuring that any developments adjacent to parks assess the

potential cultural, social, and environmental impacts on the park and its values (Banerjee, 2003). It suggests that EA is a rapidly evolving area and the department must keep abreast of changes in legislation, as well as best practices, to ensure that activities consider potential environmental, cultural, and social impacts. However, at present there is no use of environmental assessment for the development of projects, tourism related or otherwise, unless they are delineated by the Environment Protection Act (1986).

The second document is the new *Guidelines for Mountaineering Expeditions in Uttarakhand* (Government of Uttarakhand, 2004), which state that every two years, the environmental and socio-economic impacts of mountaineering will be monitored through ground level surveys. This will be completed by expert agencies from India and abroad, and will also aim to determine the carrying capacity of mountaineering and high altitude trekking activities in Uttarakhand. As the guidelines were only introduced at the time of the study, with the intention of being fully implemented during the 2005 trekking season, none of the stated impact assessment activities have been implemented.

Based on the foregoing legislation and regulations, it is apparent that at present, EA is a tool that has been considered for use, but has not been adopted by the Forest Department for tourism-related purposes. Uttarakhand Tourism, on the other hand, through the use of an independent contractor, has completed an EA for the trekking route to the Valley of Flowers. The report, however, has neither been approved by the state nor accepted by the Forest Department and as such, none of the recommendations of the report have been given serious consideration.

In general, there is no legislation specific to tourism development, and therefore, there is no specific body that has clear control over tourism planning and development.

While it seems logical for the tourism department to have jurisdiction over such activities, the legislation that is in place gives greater control to the Forest Department as activities associated with adventure are most likely to occur in the natural areas for which the Forest Department has responsibility. As such, the Forest Department is integrally involved in tourism planning, despite the fact they are not explicitly mandated to do so.

4.4 Public, private, and civic sector involvement

In order to get a broad picture of the scope of adventure tourism in the study area, individuals from the public, private, and civic sectors were interviewed. While there was often more than one player in each sector, certain agencies were dominant, and thus the amount of data available and collected reflects the current level of involvement. Also note that only the current roles of each sector are described. All comments that were considered as prescriptive (i.e., pertaining to the future and not the current state) are addressed in the subsequent chapter.

4.4.1 The public sector

The section describes the role of the government in the development of adventure tourism. Representatives from the state forest and tourism departments were interviewed. As identified by the trends in legislation, the Forest Department plays the most prominent role in adventure tourism activities in the NDBR, while Uttarakhand Tourism's role remains limited.

4.4.1.1 The Forest Department

The Forest Department governs all of the activities occurring within the NDBR. As such, they have also taken a lead role in development pertaining to adventure tourism. While their purpose and objectives are all focused on conservation, they also implement

various rules and regulations, collect fees from trekking and other activities, as well as provide capacity-building initiatives within the area. A summary of the Forest Department role is provided in Table 10. The numbers in the table indicate the number of respondents who made reference to the various roles and responsibilities of the department. For the most part, individuals from the Forest Department identified their current responsibilities, although certain things were only mentioned by other players. It is also interesting to note that while the Forest Department officials emphasized their roles in terms of conservation and regulations, respondents from other sectors were less likely to identify these as roles assumed by the department. This may provide some insight into people's perception of what roles the Forest Department fulfills versus the roles that the department's officials feel are most important. This is also reflected in the fact that numerous responses about the role of the Forest Department were negative in nature, indicated by a (-) in the table.

The role of conservation is the primary function of the Forest Department. As Respondent 3s (02/11/04) stated, "All activities by the Forest Department in the NDBR have the basic aim of conservation! Conservation! Conservation!" Further insight into this statement is offered in the respondent's comment that, "the role of the Forest Department has changed. It is no longer a timber merchant, but rather a conservator of forests. Forest property is not a timber lot, it is an ecosystem that provides air, soil, water, and the potential for employment" (3s, 17/09/04).

In discussing the activities of the Forest Department, several themes emerged that related to the role of conservation. Several respondents made reference to the legislation

FOREST DEPARTMENT ROLES									
AS DESCRIBED BY THE FOREST DEPARTMENT	Forest Department	Tourism Department	NGO	Tour Operators	Dharasi Pass (male)	Dharasi Pass (female)	Valley of Flowers (male)	Valley of Flowers (female)	ROLES IDENTIFIED BY OTHERS
CONSERVATION									
Legislation	4	1	1						
Conserving biodiversity	3								
Monitoring	5			1	2 (-), 1	1			
Waste management	2			3			1		
REGULATIONS/POLICY									
Lead agency	3	1		1			1		
Enforcement/ monitoring of rules	4	1	1	3					
Do's and don'ts	1		1			3			
Permission	4		1, 1(-)	3, 1(-)	1, 1(-)		2	1	
Policy development	6								
CAPACITY-BUILDING									
Community based tourism training	1			1 (-)	3				
Guide training	4		1	2 (-)	1, 1(-)	3	1		
Exposure	4					1			
Enabling communities for conservation	5					1			
COLLECTION OF FEES									
Ecofees	2	1	1(-)	6	1		3	2	
Park fees	1								
Monitoring via fees	2								
			1	2	2				Camping fees (too high)
				4			1	1	Ensuring accountability

Table 10 A summary of the roles of the Forest Department. Numbers are the total number of respondents making comments on the role.(-) Denotes a negative comment.

that applies to all activities in the NDBR, including adventure tourism, namely the Wildlife Protection Act, and the Forest Conservation Act. Three Forest Department officials made reference to the importance of conserving biodiversity values, as the Himalaya are what one respondent referred to as “a treasure box” (Respondent 53s, 24/10/04). State officials, tour operators, and community members made reference to the importance of monitoring, in this case for illegal activity such as collection of plants in the core zone or poaching. Finally, several individuals made reference to issues related to waste management, as Respondent 30t (09/09/04) noted there is a “need to keep all (tourism) activities clean.”

To attain the primary objective of conservation, the Forest Department has instituted a variety of rules, regulations, and policies related to adventure tourism activities. The department is also identified as the lead agency in this respect. Activities that take place in the biosphere reserve such as trekking and mountaineering require the permission of the DFO, with the system of obtaining permission being most often referred to by the various respondents. This permission system would apply to other adventure activities should they be implemented within the boundaries of the NDBR. When permission for activities is granted, it comes along with a list of *Do's and Don'ts* which apply to tourist behaviour, ranging from the hiring of local porters to the disposal of garbage. The list of *Do's and Don'ts* can be found in Appendix F.

The majority of Forest Department officials identified taking initiatives to the policy level as important, although none of the other respondents identified this as a responsibility. An example of a new policy that was implemented during the course of the study was a state-wide set of guidelines for mountaineering. However, since the

guidelines had just been introduced, none of the respondents were aware of the new regulations, reflecting the fact that the Forest Department is currently the only agency involved in policy development and implementation.

Capacity building was the third major role of the Forest Department. This refers to activities that assist the community in developing its abilities to provide services for tourism. Several capacity-building activities were identified by respondents, and various individuals spoke of their experiences in such occurrences. A community-based tourism training project was identified by respondents near the Dharasi Pass. They also referenced a guide training initiative that was provided to over 200 people in the area. The Forest Department also thought that exposure to other successful tourism ventures was a form of capacity building as Respondent 3s (19/09/04) suggested, “Every time you go somewhere you learn something.” As such, many of the community members interviewed had the opportunity to take Forest Department funded field trips to other locations in the state and elsewhere in India to visit a variety of community-based tourism ventures. These field trips included visits to locations such as Jim Corbett National Park (in Uttaranchal) and one trip to the Periyar Tiger Reserve (in Kerela, one of the southern-most states of India). While respondents who took such field trips enjoyed the trip and the opportunity to see other community-based tourism ventures, most were unable to suggest how similar activities could be implemented in their communities.

Finally, the Forest Department was responsible for the collection of fees. The fees that are charged for each party entering into the NDBR include a 60 rupee ecofee for each tourist, a 20 rupee trail management fee for each porter or guide accompanying the party, and a camping fee of 50 rupees per tent per night. National park fees are also charged.

While these fees are presented to tourists on a receipt for trekking in the NDBR, the types of fees respondents were most likely to mention were ecofees and camping fees. While 5/6ths of the ecofees are distributed to the *mahila mangal dals* (women's welfare groups) of all of the villages in the biosphere reserves, the remainder of the money collected ends up in the Forest Department coffers. In the Valley of the Flowers, there is no charge for trekking, but there is for the use of a porter or mule. The ecofees collected on the route are managed by the local EDC, and are only verified by the Forest Department. As such, the *mahila mangal dal* of Bhyundar does not receive a lump sum payment like the other villages in the area.

In general, respondents indicated that the ecofees were a way to ensure that the local communities were benefiting from tourism. However, there were concerns about accountability because the way in which the *mahila mangal dals* spends the money does not have to be in any way linked to the tourism activities that produce the funds. There is also some concern about where the remainder of ecofees and the other fees collected are spent. One respondent suggested that fees need to be linked to the services for which they are collected (e.g. camping fees being used to develop campsites), and was critical of the title ecofee, saying it "is a misleading term. A fee is an instrument for services provided. But here, the ecofee is not linked to service provision. An entry fee would be a much clearer concept" (Respondent 53s, 24/10/04). All of the respondents who mentioned camping fees did so by saying that the charges for camping are too high to be considered as reasonable for budget tourists, especially after one considers all of the costs associated with trekking, like guides, porters, food, and the series of fees collected by the Forest

Department. Finally, the Forest Department also viewed fees as a way to monitor entry into the area.

4.4.1.2 Uttaranchal Tourism

The second government body to play a role is the tourism department, or Uttaranchal Tourism. In comparison to the Forest Department, the role of the tourism department is minimal, although it is responsible for planning and promotion of tourism activities state-wide. Uttaranchal Tourism's limited involvement is reflected in the fact that there is only one employee from the tourism department stationed in Joshimath, who is little more than an office clerk. Questions related to the activities available or the role of Uttaranchal Tourism were met with references to offices in Rishikesh or Dehra Dun (the closer of the two being an eight hour bus ride away).

Uttaranchal Tourism officials identified planning as their primary function, although no other respondents identified this as a role, especially in terms of adventure activities. If planning was mentioned by someone from outside of Uttaranchal Tourism, it was made in reference to how the tourism department is focusing their activities on pilgrimage tourism, thus leaving the remainder of activities in the NDBR as the responsibility of the Forest Department. Within the role of planning, the creation of Master Plans was considered as the department's main function. Such plans were generally created with the assistance of external consulting agencies, and were being produced for a range of tourism activities and destinations. Master Plans are implemented once they are approved by the Chief Secretary of the Government of Uttaranchal.

The Master Plans that are currently up for implementation that relate to adventure tourism in the study area are the *Master Plan for Trekking* (Pannell Kerr Forester

Consultants, 2003) and the *Master Plan for the Valley of Flowers-Hemkund Belt* (Tata Consultancy Services, 2003). Neither of these had been officially accepted by the Chief Secretary at the time of writing, and as such copies of the documents could not be attained. However, upon perusal of the Master Plans in the Uttarakhand Tourism head office in Dehra Dun, it was evident that the plans attempt to address the variety of considerations necessary for successful tourism development, from infrastructure to service provision.

Such is also the case for the official state tourism policy (Uttarakhand Tourism, 2001), which applies to the myriad of tourism and tourism-related products and services available across the state. It seems however, that both the tourism policy and the master plans have little influence, and although the creation of such documents is commendable they do little in the way of empowering Uttarakhand Tourism to create change. In the NDBR, the Forest Department is the governing authority with the legislative backing to implement plans. As such, even if something such as a tourism policy or a master plan is well prepared and gave consideration to a multitude of issues, if the Forest Department does not support it, it will not have any influence in the development of the area. Uttarakhand Tourism is thus restricted in its ability to have a major impact on adventure tourism activities in the NDBR.

In terms of Uttarakhand Tourism's role of promotion, most respondents were generally unimpressed with the department's efforts, making statements such as "They are not promoting adequately and the tourists are arriving on their own" (Respondent 52s, 23/10/04), or, "They need to be doing more in terms of promotion" (Respondent 7t, 24/08/04). This is also reflected in the lack of information and promotional material

available at the tourist information desk located in Joshimath, at the state-sponsored guest house, the GMVN. While a poster behind the front desk described some of the adventure opportunities state-wide, the only other information that was available was a dated brochure from the past Uttar Pradesh government on a destination several hundred kilometres away.

Upon meeting with various Uttaranchal Tourism officials in the state capital of Dehra Dun, there was evidence that the department was involved in activities that could be beneficial to the adventure tourism industry state-wide. The department had staff specifically responsible for the development and promotion of adventure tourism activities. For example a white water paddling event was being planned and promoted in cooperation with tour operators in Rishikesh and Haridwar. The department is also linked with the Garwhal Mandal Vigas Nigam (GMVN), a state funded guest house chain that also has staff in Dehra Dun and Rishikesh whose activities focus on adventure tourism development and promotion. The location of these staff position helped demonstrate that the department was focussing the majority of its efforts in other parts of the state. One of the reasons for a concentration of activities outside for the NDBR is the fact that in other regions, the Forest Department has traditionally had less influence. Respondent 57s (25/10/04) felt that the department's efforts were restricted by the legislation supporting Forest Department activities and agreed with the sentiment that "The conflict between the forest and tourism departments has to do with their opposing mandates: conservation vs. promotion."

4.4.2 The private sector

The main function of the private sector was the delivery of services. While tour operators were the service providers most engaged in the adventure tourism industry, consideration was also given to the porters, mule runners, and Gurudwara associated with the Valley of Flowers trek (while porters and mules are used elsewhere in the NDBR, nowhere else are things as organized as on the Valley of Flowers route), not to mention the services provided by NGOs and the Indian Mountaineering Federation.

4.4.2.1 Tour operators

The tour operators serve not only as the providers of adventure activities, but also as the main contact point for tourists. They act as liaisons between the tourist and the Forest Department, and navigate the system of permits and fees with all concerned parties. Certain routes near the border with China (Tibet) require not only permission from the Forest Department, but also an Inner-line permit from the District Magistrate. There are 11 tour operators registered with the DFO, with the senior-most agency operating since 1987, and the newest registering for the first time in 2004. The average number of years in operation is six, although five of the tour operators have only registered within the last three years. The majority of tour operators (six) provide services based entirely out of Joshimath, while five have the capability of providing services in other parts of Uttaranchal and India.

There is an informal association that provides a forum for all tour operators to meet and discuss issues within the industry. There is, however, no real structure to the association, as described by Respondent 7t (23/08/04) “There is an association of tour operators that meets occasionally, but there is a lack of cohesion and organization. They do more arguing about what to do than actually doing anything.” The basic roles of the

tour operators can be categorized into the delivery of services, the provision of employment, and promotion. A summary of these roles can be found in Table 11.

TOUR OPERATORS ROLES				
AS DESCRIBED BY TOUR OPERATORS	Tour ops	Forest Department	Locals	NGO
SERVICES				
Trekking	12			
Skiing	8			
Mountaineering	6			
Rock climbing	3			
Rafting	2			
Cycling	1			
Paragliding	1			
Employment				
Number of regular employees	7			
Employing locals	7, 2(-)	2	5	1
Promotion				
Current activity	4	2	3, 2(-)	1(-)

Table 11 A summary of the roles of the tour operators. (-) Indicates where comments about the role were negative in nature.

Only the tour operators themselves made reference to the actual services they provide. In this, interaction with the client is included, with most tour operators making reference to the information given to the tourist on the activity in question. In fact, the tour operators are the only players in the industry whose activities focus primarily on the tourist. They are the first point of contact, they manage the requirements of the Forest Department on the tourists' behalf, and they aim to satisfy all of their clients' needs. All of the tour operators had a grasp of the English language, so as to be able to communicate with foreign tourists.

In making arrangements for the tourist, the tour operators become a source of employment for other individuals in the area, including office staff, guides, porters, mule

runners, and expedition cooks. According to the Forest Department's *Do's and Don'ts* list (Appendix F) guides and porters must be hired locally, so as to ensure community involvement and benefit sharing with those living closest to the trekking routes. While this is a rule that is generally respected, it provides frustration to some tour operators who believe that many of their clients are on a limited budget. While most would agree that locals should stand to benefit from tourism activities, locals tend to charge higher rates for their services than the migrant Nepali porters who reside in the area during the peak season. The tour operators would also rather see the rules about local employment being applied on a regional basis, and not according to specified routes. They cite the fact that locals are often busy with other tasks (e.g. helping with the harvest) and not readily available for trekking parties to come through.

The final role of the tour operators is that of promotion. Promotion was identified as a current activity by only four tour operators. Respondent 19t (01/09/04) summarized the role of promotion in saying, "Today, you must understand how to run a business, and some agencies do better than others. Successful agencies are using marketing and advertising." The internet seemed to be an important tool to assist in such tasks, with several of the tour operator offices having a computer and internet connection. It is interesting to note that more respondents from other sectors identified promotion as a current role for the tour operators to undertake than the tour operators themselves. While this may simply indicate that certain tour operators are more business savvy than others, it may also indicate that various players from the industry recognize promotion as important and see the tour operators as key players in this regard.

4.4.2.2 Other private enterprises

Aside from the tour operators, three types of private enterprises were considered on the Valley of Flowers route: porters, mule runners, and the Gurudwara (Sikh temple, which provides accommodation in Govind Ghat and Ghangria). The porters and mule runners offer their services at a rate set by the Forest Department and EDC. They can be contracted at the base of the trail, and are all registered with the Forest Department. The porters and mule runners are generally not locals, and come to the area for the *Yatra*, or pilgrimage season. As such, they are subject to the registration system as determined by the Forest Department, and have not had any opportunity to voice their opinions on how the trail is managed. While the porters interviewed seemed generally content with the situation, several mule runners voiced the opinion that they would like to have a greater say in how the system for mules is managed. For example, while the set rates make it fair for the tourists, they used to be able to charge more in the peak season, and would charge less during the low season. Respondent 34p (12/09/04) believed that “Rates need to reflect tourist flow.”

The Sikh community is represented by two Gurudwaras located at either end of the trail. While the Sikh community has made significant contributions to the clean-up efforts in recent years, they have generally not been allowed to partake in the general management of the trail, as it falls under the Forest Department’s control. While there is little desire on behalf of the Gurudwara managers in Ghangria for further involvement, the managers at the start of the trail are more actively involved (with the local Eco-development Committee from Govind Ghat). The Gurudwara has the ability, through the Gurudwara Trust (located in Rishikesh), to provide further financial support to initiatives, but cannot go through with any plans until they are approved by the Forest Department.

4.4.2.3 NGOs

There are three non-governmental organizations (NGOs) that work in the study area, although their mandates are not always directed specifically at adventure tourism. While each of their functions will be discussed in some detail below, their overall aims can all be linked to the roles of capacity building and conservation. In this region they also provide alternatives to government. One respondent noted “NGOs provide an alternative to government, who people sometimes have a hard time trusting” (13ngo, 28/08/04).

The first organization, Garhwal Adventure Sports School and Mountain Services, works not only as an NGO, but also as a tour operator, making the necessary arrangements for groups wanting to go trekking in the area. In terms of capacity building and conservation, the organization provides two types of training opportunities: adventure camps for youth, and ecotourism orientation training. The first refers to a ten day training course (provided on demand) that covers everything from the basics of first aid, to where to set up camp when trekking, to a review of the *Do's and Don'ts* list. The ecotourism orientation is far more general, concentrating only on the *Do's and Don'ts* list, and is provided on an annual basis for all of the guides and porters who register with the DFO. The remainder of its efforts as an NGO is directed at activities unrelated to tourism, and deal largely with the promotion of organic farming techniques.

The second NGO is an internationally funded agency called Pragya that focuses on rural development in ecologically sensitive areas. Its activities in the region focus primarily on developing self-help schemes for women's groups, but also have the general aim of conserving culture and heritage. The agency has developed community-based tourism enterprises in other parts of India, but not in the study area. Towards the

completion of the study period, Pragya had commenced work on a museum in Auli (the ski hill located 14 kilometres from Joshimath) dedicated to the conservation of culture and heritage with the help of a committee of villagers from the region.

The third NGO is the Alliance for Development, a Dehra Dun based agency that supports movements related to protected areas across Uttarakhand. Its focus lies primarily in the area surrounding Nanda Devi National Park and it has undertaken initiatives towards the development of community-based ecotourism. Working closely with some key figures from Lata village, the organization describes its role as critically discussing issues with the community and devising plans for action. One of its projects involved the compilation of a declaration for biodiversity conservation and ecotourism (see Appendix G). The organization also has plans for tourism development that reflect the declaration. The NGO has brought many of the community's initiatives and issues to the media, through articles for various news papers and via the internet.

The scope of each of the NGO's activities is quite different. The Garhwal Adventure Sports School's services have been implemented across the NDBR, the activities of Pragya are more focused in villages in the Niti Valley, and the Alliance for Development works primarily with Lata village. As with all of the activities in the NDBR, the NGOs must work within the rules and regulations of the Forest Department, which is a source of frustration to most. Despite the fact the activities of the NGOs are similar to some of the aims of the Forest Department, there is no link made between these efforts. One would think that all activities geared towards conservation and capacity building would be seen as beneficial, but there is a definite disconnect, especially

between Pragma and the Forest Department and the Alliance for Development and the Forest Department.

4.4.2.4 The Indian Mountaineering Federation

While the Indian Mountaineering Federation (IMF) does not play a major role in adventure tourism in the study area, it is worthy of mention as it is the body which approves mountaineering expeditions for all major peaks in the country. Based in New Delhi, the IMF is associated with numerous government bodies, including the Ministries of Sport, Defence, Tourism, and the Environment. The organization's primary objective is to "organize, support and provide a base for expeditions for mountaineering, rock climbing, trekking at high altitudes and to promote, encourage, support and execute schemes for related adventure activities and environmental protection work in the Himalaya" (IMF, 2003). The IMF's approval is required for expeditions to the major peaks in the NDBR, which includes the payment of a peak fee by the expedition. Permission from the IMF is aimed particularly at foreign climbers, who are restricted by law from climbing peaks without a permit. If the application for the given peak is accepted, the IMF provides the required permission on behalf of the central government. This includes arrangements for a liaison officer for the expedition who maintains contact with the Indian Air Force for helicopter rescue and with other agencies for land search and rescue, along with weather forecast information.

The IMF was also involved in the development of the *Guidelines for Mountaineering Expeditions in Uttarakhand* (Government of Uttarakhand, 2004), through consultation with the Forest Department. According to the guidelines, the IMF shall refer expedition applications to the Chief Wildlife Warden stationed in Dehra Dun four weeks

prior to the commencement of the expedition for final clearance. Prior to the guidelines, permission would need to be given by the District Forest Office in Joshimath – causing much frustration to expeditions forced to wait an extra day or two in Joshimath despite having the permission from the IMF for the peak.

The *Guidelines for Mountaineering in Uttarakhand* (Government of Uttarakhand, 2004) also state that a portion of the peak fee remitted to the IMF will be used to assess the socio-economic and environmental impacts of mountaineering activities in Uttarakhand. Additionally, a portion of the peak fee should be aimed towards capacity-building initiatives of local stakeholders and communities, as well as for the improvement of general safety measures. As these guidelines were only being introduced at the time of the study, none of the listed activities had yet taken place.

4.4.3 The civic sector

The civic sector considered in this study included community members residing near the case study routes of the Valley of Flowers and the Dharasi Pass (i.e., people from the communities of Bhyundar, and Lata and Tolma respectively). The communities were selected to represent the civic sector as they are more likely to interact with the tourists than community members in Joshimath, due to their geographical proximity to the trekking routes and the provisions in the *Do's and Don'ts* list regarding local employment. While these communities share a common geography and culture, their involvement in adventure tourism is different. As such, prior to entering the discussion on the current roles of each community, a detailed description of the trekking routes will now be provided. In describing the routes, the involvement of the community members begins to unfold, although a detailed discussion of the roles follows.

4.4.3.1 The Valley of Flowers

The trail to Hemkund and the Valley of Flowers begins in the town of Govind Ghat, some 20 kilometers from Joshimath. Govind Ghat, at an elevation of 1960 meters, is a seasonal village, which opens primarily during the *Yatra* season. Inhabitants consist primarily of permanent residents of Pandukeshwar, a village 4km further down the highway, along with seasonal shop owners and labourers. In Govind Ghat, one can make arrangements for porters or mules through the local Eco-Development Committee (EDC) for the journey up the 13km trail. These services come at a range of prices, which are fixed for the distances between Ghovind Ghat and Ghangria, and Ghangria and Hemkund, and require the payment of an ecofee of 60 rupees to the village EDC. Those who choose to trek the path on their own wind do not have to pay the ecofee. While porters may be contracted for hiking in the Valley of Flowers itself, mules are strictly prohibited.

After crossing the Alaknanda River at Govind Ghat, the trail makes its way along the Laxman Ganga River. For the most part, the trail is wide enough for both humans and mules to walk side by side, and is hardened with the use of stones. It is however, still subject to the monsoon rains and parts of the trail are lost to landslides each year. The hardening and physical maintenance of the trail is the responsibility of the Public Works Department, while the regular cleaning of the trail of garbage and mule dung is contracted out to non-local sweepers by the EDC. The involvement of the Public Works Department is unique to this trail due to the sheer volume of traffic, and does not occur elsewhere in the area.

Three kilometers bring you to the village of Pulna, which acts as a winter village for the people of Bhyundar. Beyond this, the trek becomes more exciting - the Laxman

Ganga becomes swifter, and between the green, rocky mountains, you can catch a glimpse of snow-clad peaks (Garhwal Tourism.Com, 2001). At various intervals along the trail, one can find tea stalls and small shops in clusters referred to as '*chattis*'. These businesses are locally owned (although not necessarily locally operated), with each household from Bhyundar having the right to own one shop, tea stall, or hotel along the route. Another seven kilometers brings you to the village of Bhyundar itself, which is inhabited primarily by the women and children during the trekking season, as the men spend the *Yatra* season attending to businesses along the trail or in Ghangria. Five kilometres beyond Bhyundar is Ghangria, at 3090 meters, which is where the trail splits to Valley of Flowers or Hemkund Sahib. Ghangria offers a variety of accommodation options ranging from camping, to hotels, to shared accommodations at the Sikh Gurudwara. It is generally the resting point for tired travellers who proceed to their final destination on the following day.

The entrance to the Valley of Flowers National Park is about 800 meters beyond Ghangria. The trail begins along the Laxman Ganga, which is joined by the Pushpawati River. One treks for close to three kilometres through dense forest before emerging into the beginning of the valley itself. The valley is approximate 10 kilometers in length, two kilometers wide, offering views of Rhatbhan Peak (6126 meters), Hatti Parvat (6600 meters) and Gauri Parvat (6590 meters), to mention a few. And as the name suggests, it is host to over 300 species of flowers, along with a variety of large and small mammals, birds, and reptiles. The state Forest Department statistics for visitors to the Valley of Flowers during the 2004 season state that 111 government officials, 4388 domestic tourists, and 437 foreign tourists, for a total of 4936, visited the park. Entrance fees into

the national park are 40 rupees for nationals for three days, and 350 rupees for foreigners for the same time period. Additional days for foreigners can be purchased at the price of 150 rupees per day. Camping is prohibited in the park, and as such, very few visitors spend more than one day visiting the area. Respondents agree that this fee structure is flawed and needs to reflect the fact that camping is prohibited.

The park is also currently being considered by the IUCN for designation as a World Heritage Site. Figure 4 presents a combination of maps – one of the general route to the area from Joshimath (Adventure Trekking Ltd. 2004), and one a sketch of a map created by a Forest Department official of the valley itself.

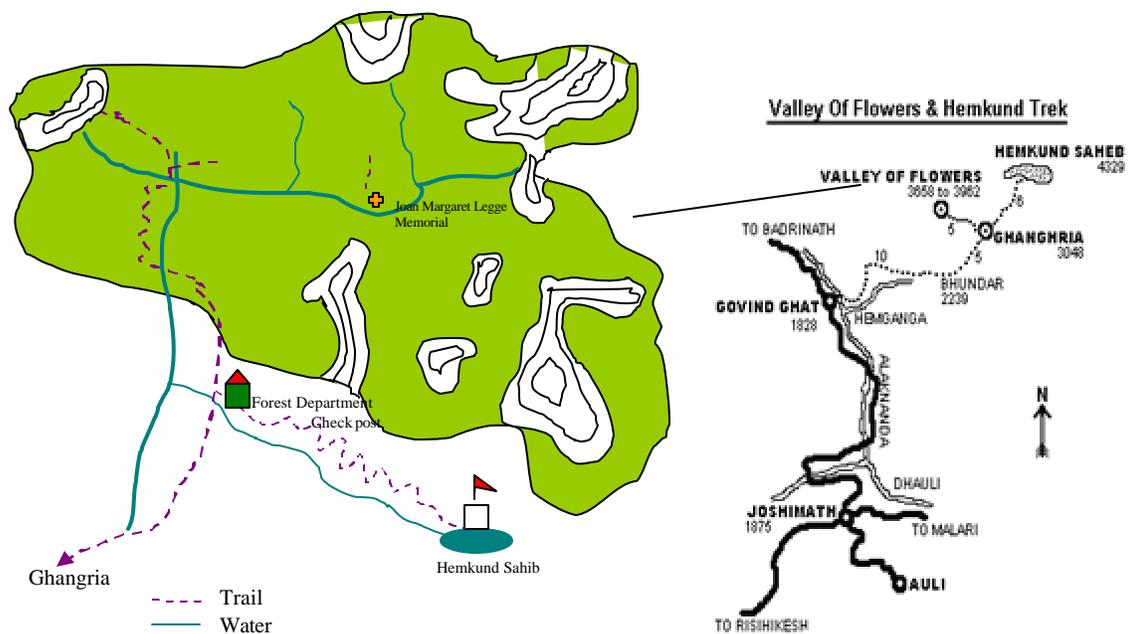


Figure 4 Map of the Valley of Flowers (Road map – Adventure Trekking Ltd., 2004).

The trekking route from Govind Ghat to the Valley of Flowers has seen some major changes in the last several years. Recognizing that waste management was becoming a serious issue on the trail, with garbage accumulating from tourist traffic and

the hundreds of shops that once lined the trail, the Forest Department initiated a major clean-up scheme. This began in 2001 with the dismantling of many of the stalls between Hemkund and Ghangria, which consist of little more than a wooden frame and large pieces of polythene as walls and a roof. The dismantling was the responsibility of the Forest Department, and was described by one respondent as a “hard handed approach, with the use of outside labour and force” (Respondent 3s, 16/08/04). These efforts were supplemented with negotiation and discussion with the local community. Eventually the women of the village became involved in the clean-up effort, and the dismantling of shops continued in between Ghangria and Govind Ghat. By the 2002 *Yatra* season, the total number of shops was reduced from approximately 500 to 70. Check-posts along the trail were established, and there was a redistribution of the fees collected from the mules and porters to the local community. The EDC became an established organization, and began to be more involved in the management of the trail. In 2003, the clean-up effort continued with the removal of an estimated 600 tons of waste. Garbage bins were provided, and the supervision of sweepers on the trail was managed by the local EDC. An interpretive centre was constructed in Ghangria, where a daily presentation on the valley, its history, and the clean-up effort are described, along with information on the multitude of flowers for which the area is famed.

4.4.3.2 The Dharasi Pass

The Dharasi Pass is considerably less developed and more remote than that of the route to the Valley of Flowers, and can be accessed from either Lata or Tolma. Each village is located off the main road (1.5 kilometers and 3 kilometers respectively) where the villagers have winter homes. Both villages can provide tourists with the option of a

homestay at the beginning or end of the trek at a minimal charge. While Lata holds a policy that all porters and guides must be hired locally, the residents in Tolma suggest that only one guide and one porter must be arranged locally. A map of the area is provided by Figure 5.

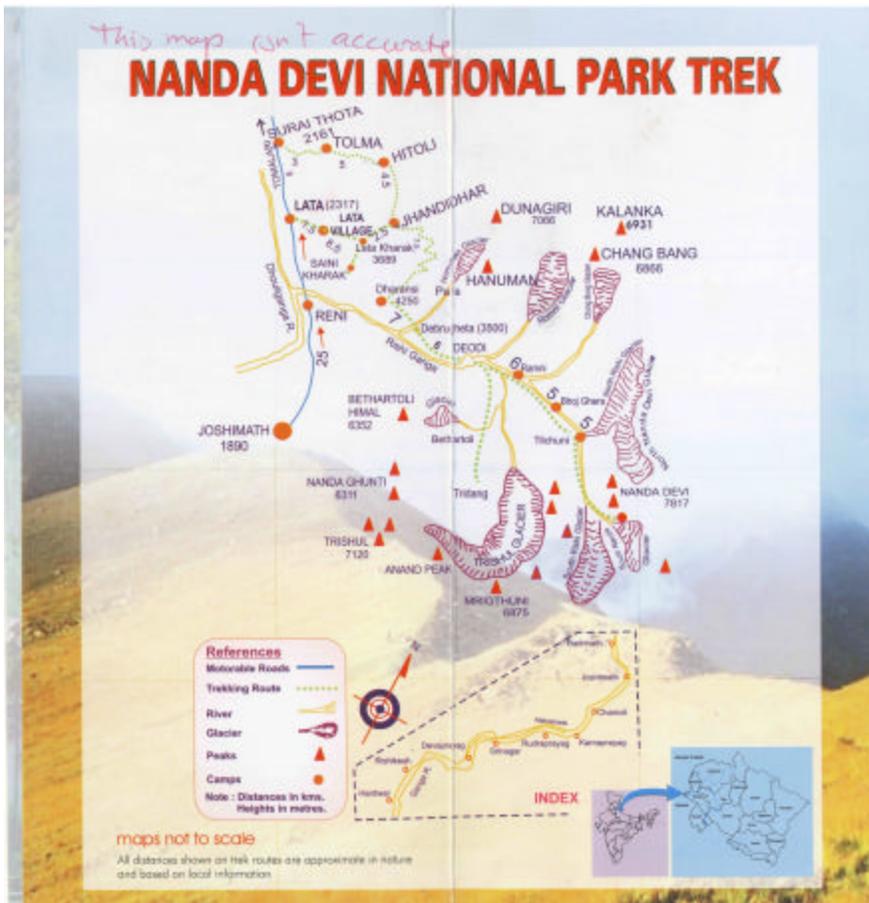


Figure 5 A map of the Dharasi Pass and surrounding area (GMVN, 2004).

The Forest Department has set rules for entering the park. This includes stipulations such as arriving at either village one day prior to the start of trekking, to ensure that parties enter the park by 10 a.m. the following day. The Forest Department states that a homestay in Tolma or Lata is compulsory and tenting near the village prohibited. According to the villagers however, these rules are often not followed. Further

to this, the Forest Department has restrictions on visitor numbers and movement, stating that each group must consist of no more than five visitors, with no more than two groups permitted entry on any given day, and no more than four groups in any given week. A maximum of one guide and five porters can accompany any group.

A start point in Lata promises a tough day of trekking, with the ascent to Lata Kharak, where a hut is available for camping, covering more than a 1.5km change in elevation. It can be considered as the original route to Nanda Devi, as the route from Tolma is said to have originated when a well-reputed guide was banned from using the original route due to his inappropriate behaviour and thus decided to forge an alternative route. The ascent from Tolma is more gradual, with greater forest cover, arriving at the first campsite at Hitoli, where a suitable water source was only recently discovered. The trails from Lata and Tolma meet at a location called Jhandidhar, and continue towards the pass. The Dharasi Pass (4250 meters) itself, is described as “a long narrow ridge (that) is dangerously narrow at the best of times” (Aitken, 1994, pp. 109). “On three sides it is enclosed by these grassy hills, and on the fourth it opens above the precipice which forms the side of the main valley. It seems to be entirely cut off by the outside world” (Shipton, 1936, pp. 65). It descends onto a place called Debrughetta, “a heavily forested glade next to a running brook” (Roskelly, 2000) where it meets the Rishi Gorge. It is the furthest point in the national park where travel is allowed, and was where past expeditions would continue up the Rishi Gorge to the Nanda Devi base camp. Camping is not permitted at Debrughetta, and thus, trekkers must make their way to and from Dharasi in one day (approximately 12 kilometers including the return trip). Trekkers can then complete the

trek returning to the village in which they started, or by taking the alternate route to the other village.

The total number of trekkers during the 2004 season on the Dharasi Pass was as follows: 48 government officials, 118 domestic tourists, 18 foreign tourists, for a total of 184 visitors. This is an increase from the first season the trekking route was open, with arrivals during 2003 totalling 16 groups, with 102 people, but still remains considerably less traffic than what was experienced in the late 1970s and early 1980s.

4.4.3.3 The roles of the communities

As the character of the trails themselves is considerably different, the roles of the communities are also of a different nature. While all of the roles of each community are listed in Table 12, the discussion that follows will help to identify both the similarities and differences in the roles that the communities currently play. The numbers in the table represent the number of individuals who made reference to any given role. Responses have been separated into male and female responses as there was often a difference in what each group mentioned.

In terms of employment and income generation, the people in the villages of Lata and Tolma cited guiding and portering as the most often identified role, and included young women among those who can fulfill such duties. Homestays were also mentioned as a current role, with three households in Lata registered with the Forest Department for such purposes, and eight households in Tolma. Monitoring on behalf of the Forest Department was also mentioned, although it is not currently an activity associated with any income generation. Finally, being a recipient of ecofees was considered as a method

LOCAL ROLE									
AS DESCRIBED BY LOCALS	Dharasi Pass	Dharasi - women	V of F	V of F - women	Forest Department	Tour Ops	NGO	Tourism Department	AS DESCRIBED BY OTHERS
INCOME/EMPLOYMENT GENERATION									
Guiding/portering	4	9	2		3	5	1	1	
Homestays	4	1			1		1	1	
Monitoring	1	1		2	2				
Ecofees recipient		3	2	3	1	5			
EDC									
Involved?	2	2	5	7					
Positive/negative?	1(-)		3, 2(+),1(-)	1,1(+),4(-)					
TRAIL MAINTENANCE									
General			5	5p,1					
Sweeping/cleaning			1	1					
Interpretive			1	1					
Checkposts			1	3					
OTHER									
					2				Cooperate with the Forest Department
						4			No real role

Table 12 A summary of the roles of the civic sector. (+/-) indicate satisfaction with activities; 'p' indicates past involvement

to gain income by several women in the villages, although not mentioned by any of the men.

In the Bhyundar Valley, en route to the Valley of Flowers, guiding and portering is not given the same sort of emphasis as in the Dharasi area, although it was mentioned by some male respondents. Guiding is currently not a role for women to fulfill. Women mentioned monitoring, which in this case refers to trail maintenance, especially keeping watch over the work of the sweepers. The collection of ecofees in this case seems to be more the domain of male members of the community as certain members of the EDC are left in charge of collecting the daily income from trekkers paying for porters and mules. The women, when mentioning ecofees, did so by stating that the *mahila mangal dal* is not the recipient of such fees.

Both communities made some mention of the activities of the local Eco-Development Committee, or EDCs. Respondent 3s (16/08/04) described these committees by saying “Eco-development occurs when the establishment of a protected area puts pressure on the people.” More formally defined, eco-development is a “strategy for securing support of local communities and stakeholders for protected area management (that) has rapidly gained ground over the last decade... Activities currently being implemented in India... focus on microplanning as well as the processes involved in community participation, empowerment of the partners, institution building and collaborations with other stakeholders” (Badola et.al, 2002, pp. 1).

The EDC in the Valley of Flowers is more active in terms of membership (each household has at least one EDC member), and is in charge of the activities associated with the maintenance of the trail including staffing check posts for the collection of

ecofees, monitoring of sweepers, and facilitating activities at the interpretive center in Ghangria. It is important to note that comments made about the functions of the EDC in the Valley of Flowers were not always positive in nature. While many of the women indicated that they had paid an EDC membership fee, several mentioned concerns in statements such as “Other than (the cleaning of the trail) there have been no benefits to the community from the efforts of the EDC. The meetings are not all inclusive. The decisions are made by the board and not the whole committee” (Respondent 60cmf, 05/11/04). Accountability for the spending of the ecofees was identified most often as a concern.

While there are EDCs in the villages near the Dharasi Pass, their activities are less linked to tourism than the activities of the EDC in Bhyundar. The activities of the EDCs in Lata and Tolma revolve largely around a micro-planning process to gain funding for various community development purposes. The only activity at present time that links the EDC with tourism development is the homestay program, the item that was most cited in terms of activities related to tourism. The communities of Lata and Tolma currently have no role in the management or maintenance of the trail, via the EDC or otherwise.

The other sectors are not quick to add to the list of roles of local people. Certain state officials felt that the primary role of community members is to cooperate with the Forest Department, while some tour operators believed that the local communities do not play a major role in adventure tourism at present. What is mentioned most often in terms of community involvement is the need for further capacity-building initiatives that increase meaningful community participation.

4.4.4 Evaluating current civic sector participation

In considering the current roles of the civic sector it seems as though capacity building is necessary to increase the involvement of local communities in the adventure tourism industry. This is reflected in the fact that the types of roles that community members were assuming are very basic in nature, especially in the case of the Dharasi Pass. People are not involved in any form of planning or policy development, and while the route to the Valley of Flowers allows for participation in trail management, planning and management for adventure tourism remained largely in the hands of the Forest Department. If the ultimate success of any tourism development requires integrated participation on behalf of the host community, as the literature suggests, then steps must be taken to maximize community involvement.

In order to determine how community participation could be improved upon in the future, the current levels of community involvement were assessed. The assessment criteria were derived from the literature review in Chapter 2. To review the criteria against which the communities were assessed, see Appendix A. The first two frameworks, Arnstein's Ladder and the IIED's typology of participation, were used to consider participation in terms of relationships with an outside authority (in this case the Forest Department), while Gibson's principles for community participation were used to evaluate the level of participation within the communities themselves. These frameworks were selected to provide a broader interpretation of public participation than that which would emerge if only one framework was considered. Arnstein's Ladder was seminal framework, while the IIED's typology provides a framework that defines activities in a way that is fitting to the situation in the study area. Gibson's principles, while originally designed for public participation in EA provide a reasonable framework for the

evaluation of project development, and allow for an assessment that does not feature an outside authority.

In the Bhyundar Valley, the EDC was the body most closely associated with tourism activities, especially in its role of the management of the trail. The EDC holds meetings on a semi-regular basis, although aside from one general meeting at the beginning of the season (which the entire community attends), only the board members meet on an on-going basis. These meetings take place in Ghangria, so despite the fact that the board has positions reserved for women, the women do not typically attend as they reside in Byhundar during the *Yatra* Season.

The EDC provides employment through various means, including sweepers on the trail (all of whom are non-local), check posts (filled by both men and young women from the community), and at the interpretive centre in Ghangria (filled by two local and on non-local young women). Within the Valley of Flowers itself, all positions are filled by non-local Forest Department staff. The appointment to check post and interpretive centre positions is done by the EDC chair, and some believe that this needs to be done more fairly. While the majority of men agree with hiring outsiders to fill sweeping positions the women still expressed interest in fulfilling such a role. Some of the women believe that they have been discouraged by certain members in the community to take part in current trail management activities.

Near the Dharasi Pass, there is no specific organization responsible for tourism activities. While community members can fill the role of guides, porters, and hosts, and have been involved in various community-based tourism training initiatives, on the whole, the locals have had limited input into the current state of adventure tourism.

Respondent 15cm (29/08/04) stated that, “The village has no major plans for tourism as of yet” and admits that his understanding of tourism is limited. Those who have been involved with training initiatives were able to identify the assets of the villages, along with the potential challenges in becoming a tourist destination. However, since there has been a general lack of follow-up for capacity-building initiatives, the ideas or plans from community-based tourism training have not been implemented. In fact, the report on one such training event remained shelved in the home of the participant, most likely from the time of the training to the day I arrived in the community, which was also reflected by the fact that other villagers were unaware of the document and its contents.

In Lata village where the NGO Alliance for Development has focused its efforts, certain key players from the community have been involved in making plans for tourism development. This includes chronicling the history of the area, as well as creating a declaration for future tourism development (see Appendix B and Appendix G respectively). These efforts however, seem to have gone unnoticed by the majority of community members and were only mentioned by the respondents who were directly involved. As such, while these efforts were intended to ensure that the local community is the beneficiary of tourism development, there is little evidence that the concepts being declared on paper are being implemented.

4.4.4.1 Participation in terms of Arnstein’s ladder

In comparing the level of community involvement in the villages to Arnstein’s Ladder, participation can be associated with degrees of tokenism. Degrees of tokenism suggest that while the civic sector is engaged in some form of information sharing, the

power over decision making ultimately lies in an outside authority's hands. In this case, the outside authority is the Forest Department.

Consider the situation of those living en route to the Valley Flowers. While the establishment of the EDC and delegation of certain responsibilities could be viewed as a degree of citizen power, the planning activities and decisions of the EDC board and chair were ultimately subject to the Forest Department's approval. This includes an audit of all of the accounts from the collection and spending of ecofees, which was the responsibility of the EDC chair. While the accounting was verified by the Forest Department, it was not made available to members of the community. The money collected by the EDC is used to pay the salaries of various trail maintenance employees, including sweepers, check post personnel, and interpretive centre staff. It has also been used for the creation of tourism-related services like the interpretive centre in Ghangria, along with contributing to the production of a slide show and video about the area that can be viewed on a daily basis during the *Yatra* season. Such initiatives however, are subject to the approval of the Forest Department, and in the case of the interpretive centre, had substantial Forest Department direction and input. As decisions are often influenced by Forest Department input, and the final decisions about the use of ecofees ultimately rest in the hands of this outside authority, current community participation en route to the Valley of Flowers would fall somewhere between the rungs of consultation and placation.

Community participation near the Dharasi Pass would fall at even lower rungs of tokenism, despite the communities' efforts to have the area reopened for tourism purposes. For the most part, they are informed of the Forest Department's plans for adventure tourism, and willingly partake in such initiatives. For example, the Forest

Department suggested the establishment of a homestay program and requested applications from the villages. All of the households that put an application forward are now registered as homestay options with the Forest Department.

While their input was sought through activities such as the community-based tourism training initiative, the communities have not demonstrated any actions that suggest they are taking the lead in developing projects. A means through which initiatives could be taken is the micro-planning process, wherein the local EDCs make proposals for development initiatives to the Forest Department. The micro-plan is then approved, approved with alterations, or refused by the Forest Department, which can provide the community with financial support from various sources of funding. But as one respondent suggests, decisions are not always based on the community's wants or needs, saying "The Forest Department doesn't always make decisions that benefit the people. They are protecting the forest as their primary concern, but they should also be protecting the people. They are of no help to us" (Respondent 15cm, 05/10/04). Again, participation is largely driven by the Forest Department's perspective, placing community participation near the Dharasi Pass on the rung of informing according to Arnstein's Ladder.

4.4.4.2 Participation in terms of IIED's typology of participation

In terms of the IIED's typology of participation, both of the cases are best described as participating for material incentives, although there are elements that suggest they are headed towards a level of functional participation. Certainly, the activities taking place in both of the communities are driven by the prospect of material compensation, which entails the risk of people having no stake to continue such activities once the material incentives end. However, certain activities and ideas generated by community

members indicate that organizations such as the EDC may result in a form of functional participation wherein despite having been established by the Forest Department, they become independent.

In the Bhyundar Valley, many of the EDC activities were driven by the collection of ecofees from the trail. If this income was removed, it is questionable if the community's involvement in trail maintenance activities would persist. Certainly if the trail accumulated several hundred tons of debris once, there is potential for this to happen again if the community does not embrace the long term benefits of waste management activities. There is a sense however, that the benefits of trail maintenance spread farther than the potential for employment generation. Many women, for example, indicated that the cleaning of the trail was good as many cattle were getting sick and several died from eating the debris left on the trail. There is also recognition by some, such as Respondent 26cm (08/09/04), that "if the area is cleaned it will attract more visitors. So (we) want to maintain the trail." While this is certainly the message that the Forest Department is sending to the villagers, some fear that the preoccupation with material incentives is not enough to maintain the current level of trail maintenance, as Respondent 64cm (05/11/04) described in saying "After the season, everything is over. People have stopped cleaning even though there is still plastic on and next to the trail. Everyone is only concerned about money. There is corruption at many levels."

On the other hand, the EDC provides a forum in which community members could pursue objectives geared towards adventure tourism development. This desire is recognized by several respondents, and expressed in comments such as "The EDC hopes to attract the craziest tourist (to the area). The route is well suited to adventure"

(Respondent 28cm, 30/09/04). Certain members of the EDC have been actively seeking promotion of the valley through the media, as well as seeking other financial support options, such as approaching the tourism department to help establish a series of short trails near Ghangria to provide other options for tourist arrivals. Such initiatives suggest that the community may be on its way to functional participation, although at present it is not yet there.

In the communities near the Dharasi Pass, the type that best describes current civic involvement is also participation for material incentives. Certainly those involved in guiding, portering, and the homestay program are doing so in order to receive additional income, although most recognize that acting as good hosts is important to encouraging tourism development. The means through which the communities see themselves as being able to implement plans for tourism development are the ecofees distributed to the *mahila mangal dals*, or through the micro-planning process, both of which come to the communities by way of the Forest Department.

Similar to the situation near the Valley of Flowers, there are certain community members near the Dharasi Pass who have grander visions for the development of tourism in the area. Such notions are reflected in items such as the *Nanda Devi Declaration* (Appendix G) which strive towards the development of a tourism industry that is free from monopolies and exploitation, and strives to involve the under privileged and female members of the community. In the case of Lata village, this involves the devolution of power from the Forest Department to the elected village official, or the *Panchayat*. In Tolma, more respondents tended to identify the EDC as capable of fulfilling such a role. The Forest Department has not however, acknowledged the Nanda Devi Declaration,

despite its similarities to the *Do's and Don'ts* and the general belief in the department that the communities should be the beneficiaries of adventure tourism activities. The rules, regulations, and ideas generated by the Forest Department continue to be the vehicles through which the vast majority of community members become involved in adventure tourism. In fact, the Forest Department is quick to reject the ideas generated by certain individuals making statements such as “It is futile to fight government policy. These places will not change...The villager has become a spokesperson for the cause. It is futile talking such nonsense” (Respondent 3s, 19/09/04). As such, while institutions such as the EDC or the *Panchayat* could provide the forum for functional participation, at present, community involvement remains at a level linked to material incentive.

4.4.4.3 Participation in terms of Gibson's principles

Gibson (1993) suggests that in order for community involvement to be meaningful, participation must be open, participative, and fair. These principles, while originally designed for public participation in EA, also provide a means for evaluating the nature of participation within the villages themselves, whereas the prior frameworks address the influence of an outside authority. While communities, when considered in relation to the influence of the Forest Department, seem to fall into similar categories of participation, they receive different internal evaluations.

In the Bhyundar Valley, current decisions are not entirely open or subject to public involvement and scrutiny. This is demonstrated in the fact that the EDC board members, or often the EDC chair alone, make and implement decisions without consulting the community. While many day-to-day decisions should legitimately be placed in the hands of a few representatives, accounting is currently not subject to public

scrutiny. In fact, one community stated that news of the EDC's earnings often comes by way of the newspaper, and not from the EDC itself (Respondent 64cm, 05/11/04). The EDC functions in such a way that many community members remain unaware of the decisions and activities that are taking place. This is reflected in the fact that meetings are scheduled irregularly, do not require the notification of the entire community, and occur in a location that is not conducive to the inclusion of women. As such, there are limited opportunities for all community members, especially women, to voice opinions and ideas.

Near the Dharasi Pass, the process of community involvement appeared to be more open, participative, and fair. This may just be a reflection of the fact that the current level of tourism activities near the Dharasi Pass is considerably less than that near the Valley of Flowers. Participation in tourism related initiatives took a variety of forms. Activities geared towards tourism development were not restricted to one organization such as an EDC, and in fact were linked to various community institutions such as the *mahila mangal dals* and the *Panchayats*. Community-based tourism training initiatives have involved both women and men, and respondents agreed that there are potential roles for all villagers to fill. Affiliation with one village-level organization or another is not required for participation. Village meetings provide the forum for community members to voice their opinions, and the women are actively involved in most development initiatives.

4.4.4.4 A summary of civic participation

It is clear that there is room for improvement in terms of meaningful involvement. Both Arnstein's Ladder (1969) and the IIED's typology of participation (1993) suggest that current levels of participation are subject to the authority of the Forest Department,

and that a devolution of power may be necessary if the institutions currently involved in tourism activities are to become independently functioning entities. In terms of participation within the communities themselves, participation near the Dharasi Pass was more open, participative and fair than involvement near the Valley of Flowers. This may simply reflect the fact the level of tourism traffic near the Dharasi Pass does not require the same sort of management as in the other valley, but it may also suggest that having a variety of forums for community involvement is beneficial. In any case, the similarities and differences between the communities suggest that any development initiatives need to be geared specifically to needs and abilities of the given community. A standard model for the 'best' type of community planning and participation cannot be applied in a blanket sense. Initiatives must be suited to the communities, and driven by their ideas and actions.

4.5 A summary of roles

The current state of adventure tourism in the NDBR has three primary players: the Forest Department, the tour operators, and the communities involved in adventure tourism activities, representing the public, private and civic sectors. While there are other players to consider, such as Uttarakhand Tourism, various NGOs, and other private enterprises, their roles are at present minimal in comparison to the main players. Table 13 provides a summary of each of the sector's roles, while Figure 6 depicts the relationships among the players.

	Player	Role
PUBLIC	Forest Department	Conservation Regulations Capacity-building Collection of fees
	Uttaranchal Tourism	Planning Promotion
PRIVATE	Tour Operators	Provision of services Employment Promotion
	NGOs	Capacity-building Conservation
	Other private enterprise	Provision of services
CIVIC	Dharasi Pass	Income generation (guide/porter, homestays, ecofee recipients) EDC
	Valley of Flowers	EDC Trail maintenance Income generation (guiding, ecofee recipients)

Table 13 A summary of the roles of the public, private and civic sectors

While Table 13 provides a simple glance at the current roles each sector is playing, Figure 6 helps to better describe the complexities of the adventure tourism industry at present. Figure 6 is complicated, reflecting the true nature of the adventure tourism industry. It consists of a variety of players who have a multitude of roles to fill in order to provide an adventurous experience for the tourist. The figure also demonstrates several findings.

First, as the results of both Table 13 and Figure 6 suggest, the Forest Department plays the most prominent role in many respects. It has the ability to act as an authority in the NDBR, as Respondent 3s (17/09/04) described by saying “The Forest Department has legal rights to the area through the Wildlife Protection Act and the Forestry Act. It can be an implementing agency, a lead agency. The department has total power. They can

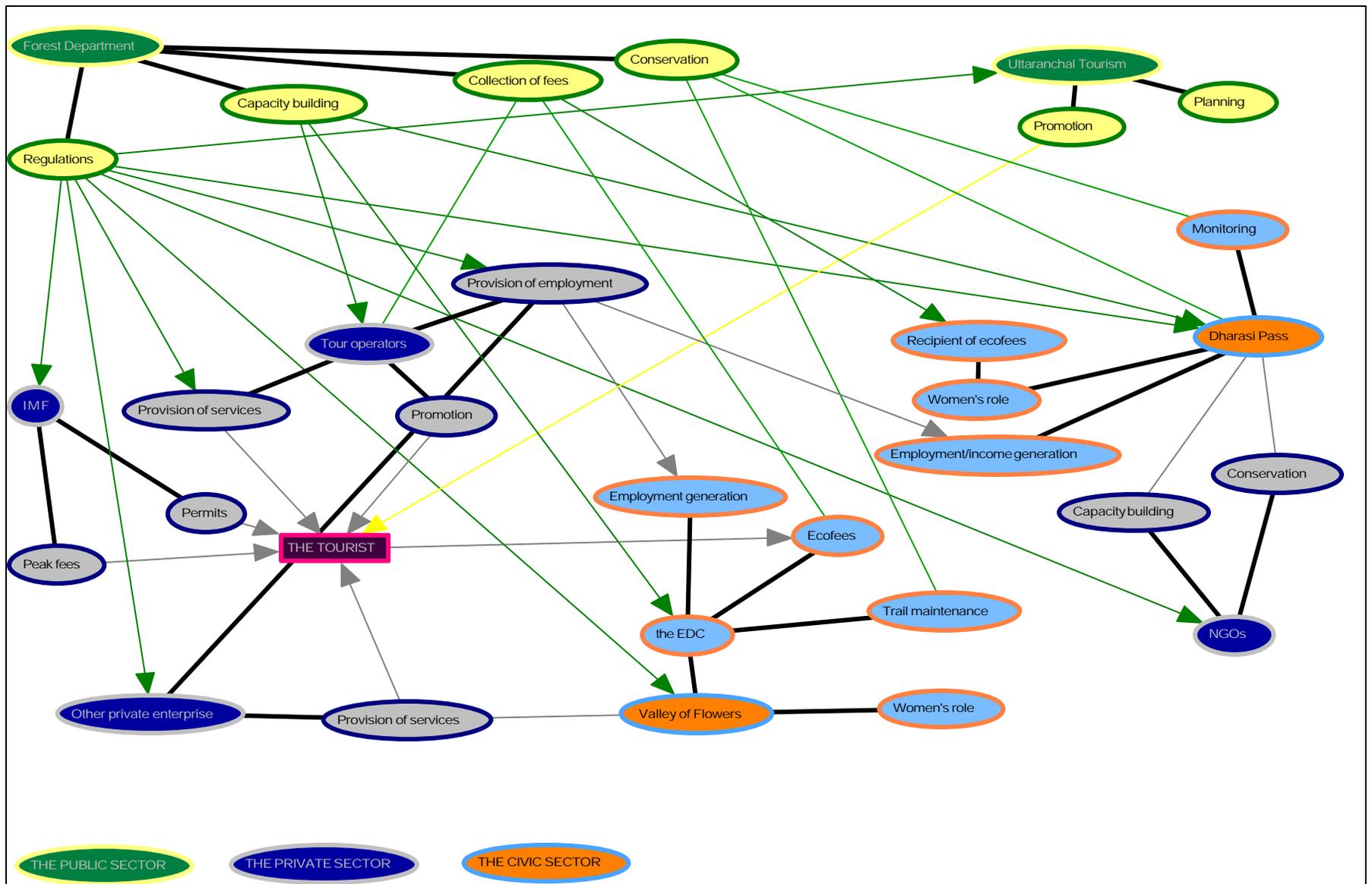


Figure 6 The web of current relationships among the players. (Arrows indicate when a relationship is directed by one player, while no arrows indicates a reciprocal relationship. Solid black lines link the players to the roles.)

limit access to the forest.” This is demonstrated in Figure 6 with the single-direction arrows that flow from the Forest Department to every other player involved in the industry.

Regulations set by the department have the widest impact, affecting the activities of every other player. While many respondents agree that regulations should be applied to adventure tourism activities, the control that the Forest Department wields over activities in the NDBR is sometimes met with frustration. Respondent 16t (31/08/04) noted that “The district forest officer wants to be the cook, cleaner, organizer, and manager of the adventure tourism industry in the area but he can’t possibly do it all himself.” The regulations often inhibit the activities of other players, which can be demonstrated by several examples. First, consider a tour operator who had made arrangements for an expedition that has the approval of the IMF, who then has to tell the party to wait several days for a signature on the permission form for activities in the NDBR. Or consider the planning activities of Uttarakhand Tourism that focus largely on other areas of the state because they recognize that the Forest Department will make the final decisions about plans for the area. Finally, consider the fact that activities conducted by the villagers, tourism related or otherwise, must also fall within the rules and regulations set by the department. These examples were all witnessed during the course of the study.

This top-down approach was also witnessed in the Forest Department’s current approach to capacity-building activities. While such activities were geared towards the development of locals’ skills and abilities, they were not driven primarily by the communities’ desires, but rather by the Forest Department’s vision. The evaluation of community participation suggests that the cases involved in the study have the potential to achieve levels of functional participation that involve degrees of citizen power. At present however, the influence and the authority of the Forest Department keep participation at relatively lower levels of participation.

Of course, the role of capacity building as assumed by the Forest Department has been beneficial to the area in the sense that they are trying to improve the skill level and abilities of

those living within the NDBR. These efforts are simply being driven by the department's vision, and not by the desires of others. Such may also be the case for activities associated with the roles of conservation and the collection of fees, although these two roles appear to encompass elements of reciprocity. For example, conservation efforts as witnessed in the trail management activities near the Valley of Flowers, have been of direct benefit to the community. Likewise, the collection and distribution of ecofees have enabled the mahila mangal dals near the Dharasi Pass to sponsor other community development initiatives.

In looking at Figure 6 it is notable that the Forest Department is the key player from the public sector. This is reflected in the fact that at a glance, Uttarakhand Tourism sits as an outlier, with little interaction or influence over the other players activities. While its planning and promotion activities are often related to activities taking place in the NDBR, the department lacks the legislative backing that the Forest Department holds with respect to implementation of plans. The tourism department's Master Plan for Trekking (Pannell Kerr Forester Consultants, 2003, pp. 111) makes the observation that there are issues in regards to control over the area:

“A key area of overlap: that of access to national parks and sanctuaries being controlled the Forest Department, while the same time these are often of prime trekking/tourism areas. The department of tourism has no role to play in this regulation with opposing agendas as of tourism promotion vs. conservation; this situation is often adversarial or at best problematic.”

The above statement suggests that Uttarakhand Tourism is not likely to assume a regulatory role, but at the same time would like to be able to pursue the promotion of activities in the area.

In looking at the role of the private sector in Figure 6, one can observe that its influence is overshadowed by that of the Forest Department. The majority of the activities of the tour operators are impacted by the regulations, which ultimately affect the nature of the relationships with other players (e.g., Forest Department rules about hiring locals impacts the tour operator's relationships with locals). Such is also the case with other private enterprises, the IMF and with the NGOs. It is

interesting to note, that despite some overlap in objectives between the NGOs and the Forest Department, whose activities are both geared towards conservation and capacity building, that there are no connections between the two parties aside from the regulations. Also note that the relationship between NGOs and local communities tends to be more reciprocal in nature than the same links with the Forest Department.

In Figure 6, the civic sector is most likely to be at the receiving end of a relationship, as is indicated by lines with arrows, i.e., they are impacted by the actions of other sectors and have limited input into activities. This is demonstrated in the directional lines from not only Forest Department regulations, but as recipients of capacity-building efforts, recipients of employment via tour operators, and recipients of ecofees. The fact that they do not find themselves in a position that allows them to have influence over other players in the industry reflects the fact there is a need for improved public participation. It is also interesting to note that the role of women within the industry is still minimal at best, especially in the case of the Valley of the Flowers, where they are only linked to the community itself.

Finally, one must consider the position of the tourist within this web of relationships. While they are the target of all of the activities associated with adventure tourism, they are a minor player in the model. They have contact primarily with the private sector, with the potential for interaction with Uttarakhand Tourism via promotion activities. The tourist is always at the receiving end of a relationship, and their exposure to things such as the regulations set by the Forest Department come through other players in the industry.

4.6 Describing the current state of adventure tourism

The current state of adventure tourism in the NDBR can be described as a complicated web of relationships. The Forest Department acts as a lead agency, especially in terms of regulations, and has the greatest influence among the public sector. The private sector's activities are those

most likely to interact with the tourist, and are ultimately governed by the regulations set by the Forest Department. The civic sector tends to fall at the receiving end of activities, and at present, has little influence over the other players in the industry.

This complicated web of roles and relationships could be reflective of the fact that adventure tourism in the study area is only beginning to emerge as an industry. Given the subjective definition of adventure tourism, which places emphasis on the personal experience of adventure, one could even argue that arriving at the base of Joshimath itself would be adventure enough for some tourists. The roads are treacherous, the amenities basic, and the further one ventures from Joshimath, the less developed the surroundings become.

In terms of Butler's (1980) destination lifecycle model, the area would be at the early stages of development. It is currently a destination that is being discovered, and is yet to be successfully marketed and is yet to experience a peak in tourist arrivals. As such, it is important for those involved in the industry to recognize that the speed of development of the area is critical to the sustainability of enterprise (Batta, 2000). Using a second application of the tourism lifecycle in Plog's (2001) psychographic model, the NDBR would be best described as a destination that appeals to the Venturers end of the spectrum. This is reflected in the fact that the area has limited amenities, is fairly undeveloped especially after leaving the base of Joshimath, and can provide the tourist with a very authentic experience. This leaves the destination in an excellent position for development, since ideal positioning on the psychographic spectrum is in the near-venturers range. What will be critical at this point is an approach to planning that rests on the true qualities of the destination that attracted tourists to the area in the first place (Plog, 2001).

Current planning for general tourism development is hard to discern. Uttaranchal Tourism is the only body that includes planning in its roles and responsibilities, but within the NDBR region its role is minimized by the influence of the Forest Department. While the Forest Department is taking initiative towards the development of the adventure tourism industry, it does

not include planning for such activities as part of its self-defined role. As such, the area is not developing according to any plan or with any long-term vision for the future of tourism. Fortunately, tourism is only now emerging as a mainstay of the community and there is still time to prevent development from taking what Pearce (1989) would call a coattail appearance, wherein the destination has no common theme, services are duplicated and redundant, competition is at a level that is detrimental, and the community itself is only involved at the later stages.

But as Figure 6 suggests, the current nature of the adventure tourism industry is complicated, and while the Forest Department has a strong role in terms of regulating activities, there is really no one responsible for tourism planning. The question then remains whose role should it be? The public and civic sectors tend to agree that ultimately, it is the communities that should be “running the whole show” (Respondent 52s, 23/10/04). But the “desire for the decentralization of tourism” (Respondent 29cm 30/09/04) or the notion that “tourism should be operated by locals” (Respondent 45cm, 04/10/04) is met with hesitation. Capacity-building is cited frequently as necessary if the development of tourism is to be successful in the long term. As Respondent 3s (17/09/04) noted, “It is critical to build local capacity so that locals can reap the benefits.” This is also reflected in the evaluation of community participation, which suggests that neither community is participating with a high degree of involvement. These are just some of the current considerations for state of adventure tourism that should play into the plans for the future, as will be discussed in Chapter 5.

CHAPTER 5. CONSIDERATIONS FOR FUTURE ADVENTURE TOURISM IN THE NANDA DEVI BIOSPHERE RESERVE

5.1 Introduction

In order to make recommendations for future developments pertaining to adventure tourism in the NDBR, there is a need to address the current issues identified by respondents within the industry. This chapter analyzes the myriad of considerations for the future of adventure tourism in the NDBR, while linking many of the issues to the literature. First, it presents the ideas and concerns expressed by respondents from the public, private, and civic sectors. Second, it considers future roles for the various players, as per the respondents' opinions. It evaluates how current decisions about adventure tourism activities could be improved drawing upon the examples of the development of the trekking route to Khakbusindi and the desired implementation of high-altitude cycling. Finally, the chapter considers how the web of relationships in the adventure tourism industry would change with the addition of responsibilities to each of the player's current roles.

5.2 Considerations for the future

Respondents from all of the sectors were asked for their thoughts the future of adventure tourism in the area. The question was open-ended, and never sought specific ideas. Rather it asked how the respondent envisioned the development of tourism. A common response to the question was "It is very bright" to which I followed up with the question of "How so?" In most cases, some of the assets of the area were listed (e.g., the Himalaya), and more often than not, there was a "but." The items cited as considerations for the future are summarized in Table 14. The number of comments is not meant to indicate priorities of items in terms of development, but rather provides some insight as to what each sector considers as important. Also note that responses from the Tourism Department were

	Forest Department	Tour operators	Dharasi Pass	V of F	NGO	Uttaranchal Tourism	Other private enterprise
INFRASTRUCTURE							
Accommodation	1	6	2	1		1	
Roads		6		1		2	1
Hygiene related	1	1	3		1	1	
Campsites	2	1	1				
Power/electricity				2		1	1
Telecommunication		4		1		1	1
TOTAL	4	18	6	5	1	6	3
COMMUNICATION							
General	2	1					
English	2	3	2	1			
Cross-sectoral	2	3	1	1		3	1
TOTAL	6	4	3	2		3	1
EMPLOYMENT AND INCOME GENERATION							
Guiding/Portering		3	3m,8f	1m,4f	1	1	
Homestays	1	1	2m		1		
Handicrafts			4f			1	
Forest Department			1m,1f	1f			
Monitoring	2	1	3m,1f				
Trail maintenance		1		1m,5f			1
Plantation project		1		1m,2f			
TOTAL	5	7	9m,14f	3m,12f	2	2	1
CAPACITY BUILDING							
For employment	2	4	4	1	1	1	
Follow-up on initiatives			3				
Decentralization	2		2	1	1		
Improving safety	1	1				1	
TOTAL	5	5	9	2	2	2	
CONSERVATION							
Physical environment	6	4	3	2	1	1	
Socio-cultural environment	1			1	2		
Education for the tourist	2		2	1			
Access to Nanda Devi	3(-)	6	5, 1(-)			1	
TOTAL	12	10	11	4	3	1	
PRICING							
Keeping costs low	1	5	2				
Setting fixed rates	2	3	1	1			
TOTAL	3	8	3	1			
PROMOTION							
Need for	4	9	2	1		1	
TOTAL	4	9	2	1		1	

Table 14 A summary of considerations identified for future adventure tourism development ('m' indicate responses from male respondent, 'f' indicates responses from females).

often drawn from the Uttarakhand Tourism Policy (2001), as this was the document referred to by the respondents as having the answers to questions.

Table 14 demonstrates how respondents tended to identify considerations that were congruent with their roles or present situations. The Forest Department, for example, made more comments regarding conservation than any other consideration. Comments were largely focused on the physical environment, which supports their role as the conservator of the forests and landscape. Tour operators, on the other hand, were most likely to make comments about infrastructure needs. This reflects their desires to provide their clients with basic tourist amenities while in the area. Community members, on the whole, were most likely to make references to the need for employment and income generating activities, be it as guides, porters, or otherwise. This is indicative of their reality because unemployment is a major concern in the area.

Despite the diversity of answers provided by the respondents, there was not a single response that indicated a need for integrated and coordinated planning for the development of adventure tourism and related services. Although it seems evident that initiatives are being taken to develop the adventure tourism industry, such activities are not taking place within any sort of planning and development framework. While some responses hinted at the need for better cross-sectoral communication, no one cited planning as an element critical to development.

Infrastructure needs were the items most often cited across the sectors. From improved road conditions, to more consistent power, to the ability to provide a range of accommodation options, the respondents recognized that in order for adventure tourism to be successful, the basic requirements of the tourist upon arrival in a service center need to be accommodated. This includes items that could be viewed as hygiene-related, including the ability to provide toilet facilities and clean drinking water. These basic components are recognized in the literature as the physical, socio-cultural and economic resources of the

host community (Cater, 1987). The planning, development, and maintenance of these features are linked to the success of a destination. The recognition of the importance of these components could be of benefit to the area, so long as the sectors also begin to recognize that their development and maintenance require planning.

Improved telecommunication systems were an item that fell under the theme of infrastructure, but are also closely linked to the communication category. Inconsistent or complete lack of phone lines, was identified as a barrier to communication as Respondent 22t (02/09/04) noted, “Communication is an issue. There is a need for consistent phone lines and internet.” Language barriers with the tourist were also a concern, with the need to speak English identified as an important skill for the industry. Finally, cross-sectoral communication, i.e., open communication among all of the stakeholders in the industry, was identified as an area for improvement, as Respondent 36t (16/09/04) suggested “There should be more meetings involving all involved to allow for better interaction with government.” This however, does not only apply between different sectors, but within each sector as well, such as the need for communication between office and field staff in the Forest Department, or between various government agencies like Uttaranchal Tourism and the Forest Department.

Employment and income generation was most often cited by community members, but was also a consideration for the other sectors. Whether it is in the form of guiding and portering, providing homestays, selling handicrafts, or filling roles for the Forest Department, people were looking for ways to gain income. This is in line with what the literature suggests about developing countries viewing tourism as a means of income generation with minimal impacts (Cater, 1987; Weaver, 1998). The literature however, also recognizes that tourism is not a panacea for all socio-economic malaise, a sentiment that is only captured by a handful of respondents, such as Respondent 54 (24/10/04) who stated

“You cannot only address issues in the area from a tourism perspective. There are issues of health and poverty.”

Among the communities consulted, women were far more likely to mention employment as a key concern. As Respondent 37cmf (18/09/04) noted “Unemployment is an issue...The children are more educated now, but they are still mostly unemployed.” This could reflect the fact that the women were, as Respondent 13ngo (28/08/04) suggested “more firmly committed to development projects than the men,” or as another put it: “The involvement of the women’s welfare groups for eco and adventure tourism is important since women are in charge of conservation. Men loiter; women spend time in the forest” (Respondent 3s, 16/09/04). Women in the Dharasi Pass were more likely to include themselves as potential guides and porters, while the women in the Bhyundar Valley were far more hesitant to agree with such a notion. The interest of the women in Bhyundar related more having opportunities to partake in trail management through activities such as cleaning the trail or in a plantation project (for slope stabilization).

Capacity building was often noted in reference to activities to increase employment and generate income. Comments regarding increasing capacity were generally directed at increasing the capabilities of the communities in the area. One of the items noted was the need for follow-up on the training initiatives that were taking place. While this was not an item cited by a large number of respondents, it was something frequently witnessed throughout the course of the study. For example, several youth, including young women, from the communities near the Dharasi Pass were provided the opportunity to train at the Nehru Institute for Mountaineering, completing an intensive course on basics of mountaineering and guiding. While the youth now have the technical skills to act as guides, all those who were available for interview were at the time not involved in the adventure tourism industry. While all are interested in becoming guides, they are “unaware of what

opportunities exist” (Respondent 39cmf, 18/09/04; Respondent 48cmf, 06/10/04). This included lack of knowledge about the popular routes, lack of contacts in the tour operator community, and a lack of the skills needed to interact with the client. This indicates that follow-up is necessary for capacity-building initiatives to be truly successful. It also suggests that the technical skills associated with adventure activities are not the only thing required to be a successful guide. The need for monitoring and evaluation of implemented activities is also suggested by the literature on tourism planning and environmental assessment. This reflects the fact that tourism is a dynamic and ever-fluctuating development (Barrow, 1997), and as such, activities geared towards such development require follow-up.

The ultimate outcome of all capacity-building initiatives should be the decentralization of tourism. This sentiment is echoed by both the public and civic sectors in statements such as:

- “Locals have an understanding of things. They should be running the whole show, once their skills are increased. They should be earning the money, and government should be regulating activities. It will evolve with time” (Respondent 52s, 23/10/04);
- “There is a desire for the decentralization of tourism. If only tour operators have the ability to provide services, what is the role of the local? The EDC could charge the same fees as the Forest Department for trekking, campsites, ecofees. Local guides could register with the EDC (vs. the DFO)” (Respondent 28cm, 30/09/04); and
- “Several things are necessary. The baseline: it should be run by the community. The government should cooperate with them. Tourism should be run in cooperation. Allow the villages to conduct tours, oversee the permission system” (Respondent 49cm 17/10/04).

The final item identified in terms of capacity building is concerns expressed about safety in adventure tourism activities. Respondent 9s (25/08/04) summarized this consideration in saying:

“There is a need for greater consideration of the safety element in adventure tourism. These activities involve a great deal of calculated risk, but what responsibility falls into the hands of the guides? There needs to be guide training of some sort. There is a need for resource mobilization for training and certification for safety and first aid.”

Conservation was a theme that emerged amid the considerations for the future, not only by the Forest Department, but by all of the sectors, albeit to varying degrees. Comments reflected not only conservation in terms of the physical environment, such as “The long term ecological health and value is not always a consideration. There is an absolute need for environmentally sensitive activities” (Respondent 9s, 25/08/04), but also in regards to the social environment, such as “The day prosperity comes there is also a loss of tradition... There is a risk of commodification of culture, a change in rituals for tourist desire” (Respondent 51ngo, 23/10/04). Several also identified the fact that conservation initiatives, be they environmental or socio-culturally aimed, must also be directed at the tourist. The literature discussed in Chapter 2 has documented the potential impacts of tourism on the physical and socio-cultural environment, and it is advantageous for those currently involved in the industry to be aware that the outcomes of tourism development could have negative consequences.

Another theme linked to conservation was that of access to the Nanda Devi core zone. Likely recalling the prosperity that came from the influx of mountaineers in past decades, villagers from the Dharasi Pass area and tour operators would like to see access to the core zone increase, and they even state hopes of the Nanda Devi peak re-opening to

climbers. This however, was met with hesitation by the Forest Department, as Respondent 52s (23/10/04) noted “There are 90 peaks open to climbers, so it makes sense to keep one peak closed. It is one place where nature can take its course. It can be used as a comparative. These peaks are the abode of the Gods. Many more peaks should be left to the Gods.” While the past pressures of mountaineering on the physical environment were destructive, and the fears of poaching and the extraction of medicinal plants legitimate, it is curious as to why Forest Department officials were so adamant about keeping the area closed. A biodiversity monitoring project conducted by an independent team of researchers for the Forest Department in 2003 suggested that the area had recovered from the pressures of earlier mountaineering expeditions (Uttaranchal State Forest Department, 2004). Additionally, a report produced by members of the G.B. Pant Institute indicated that mountaineering in the past had a positive economic impact on the communities in proximity to the peak that was devastated when access to the area was restricted (Maikhuri et al., 2000). Many respondents from other sectors were keen to see the area reopened, as Respondent 37cmf (18/09/04) suggested “There has been an increase in tourist arrivals since they reopened part of the sanctuary. They need to continue to open the area to increase tourist arrivals.”

Respondents also identified pricing as a consideration. This referred to the desire to keep costs low. Many recognize that tourists coming to the area, especially adventure tourists, are on a limited budget. It also referred to the need to establish fixed rates so that the tourist does not have to bargain. The issue of fixed rates is of special concern in the Dharasi Pass area, since villagers from Lata have a set rate that is higher than in Tolma, or elsewhere in the region. This has led to conflict between the tour operators and the villagers, as well as some feelings of ill-will between the two villages, described best by

Respondent 44cm (05/10/04) as “Lata and Tolma are not quarrelling, but silently there is competition between the two.”

Finally, the need for promotion of the area was expressed across the sectors as being an area requiring attention. Most comments were of a very general nature, stating only that more promotion was necessary. Respondent 3s (04/10/04) made a more definite statement, saying “Promotion is also key. We need to attract those adventuresome tourists (not the ones that typically come through the area who are mostly pilgrims). We need to make contacts with tour operators in Rishikesh, where much adventure tourism takes place and use them for promotion. Catch hold of those people, make regular contact and wait for popularization.” Several others related the sentiment that there is a need to work with tour operators in larger centers in order to best promote the area.

5.3 Addressing the considerations

Respondents were able to produce a myriad of considerations for the development of adventure tourism, many of which fall directly in line with what is documented by the literature. While identifying such considerations is certainly a first step in tackling the future development of adventure tourism in the area, it does little to clarify who should be assuming responsibility. As the considerations for development are widespread, all of the sectors likely have a role to play in dealing with the challenges ahead. The respondents often identified who they thought should be filling certain roles, as is summarized by Table 15. While many of the respondents indicted exactly who should be assuming a certain role, at times commentary was of a more general nature, such as “the government should...” As such, the general category of the public and private sectors were included. The discussion that follows will focus on the key considerations for adventure tourism, as opposed to assigning responsibilities for each potential consideration.

5.3.1 Proposed roles for the public sector

Respondents suggested that the public sector as a whole has a major role to play in the development of the adventure tourism industry. This is reflected in the fact that the sector held the highest number of current roles, and received the highest number of indications for future roles. Part of this is due to the fact that the public sector is seen as having the means to fulfill basic infrastructure needs, telecommunications lines, consistent power supply, and improving road conditions. Although such items should be the responsibility of state departments other than the forest and tourism departments, these basic infrastructure needs are still considered as essential components in the success of the destination because they provide the basis for tourists to arrive in the area. There is also the desire for government agencies to be providing things like foreign exchange facilities and updated maps of the region, which could reasonably be something within the realm of the forest or tourism departments.

5.3.1.1 Proposed roles for the Forest Department

Table 15 reinforces that the Forest Department is considered as the lead agency in terms of adventure tourism development, and that people assume it will continue to work in such a capacity. The department is mentioned in every category of role, with the exception of provision of services, indicating once again that their role goes far beyond conservation. Many of the roles are indicated as both current and future roles, which may be indicative of dissatisfaction with current performance, or merely suggestive that such roles need to be emphasized in the future. For example, some respondents were dissatisfied with the monitoring abilities of the department and felt that locals would do a superior job, such as Respondent 15cm (05/10/04) who stated “They are not monitoring effectively. Their staff stay roadside... Locals would make better monitors because they are closer to the area itself.”

LIST OF ALL CURRENT ROLES	Forest Department	Public sector (general)	Uttaranchal Tourism	Tour operators	Private sector	NGOs	Dharasi	V of F	LIST OF FUTURE ROLES
Capacitybuilding									
Capacity-building (general)	X 0					X			
Community-based tourism training	X		0						Cross-sectoral communication
Exposure visits	X								Follow-up on initiatives
Guide training	0								Standardization for safety
	X 0		0	0		X	0		
Collection of fees									
Accountability	0							0	
Camping fees	X								Decrease park entry fees
	0								
Ecofee collection	X								
Ecofee recipients							X	X	
Monitoring via fees	X								
Park fees collection	X								Reduce camping fees
	0								
Conservation									
	0								Allow grazing in the V of F
	0								
Conservation (general)	X 0		0			X	0	0	Charging fines
Conservation education	X 0								
Conserving biodiversity	X 0								Determine carrying capacity
	0	0				0			
Monitoring	0						0	0	Improve monitoring
	X 0	0				0	X	X	
Waste management	0							0	Plantation project
	X 0	0		0				X 0	Re-open Nanda Devi core zone
Employment generation									
Check posts	X 0							X 0	
EDC							X	X	
Employment generation (general)	0	0	0	X 0	X				
				X			X 0	X 0	
Guide/porter			0		0		0	0	Handicraft industry

Homestays								X 0	
Interpretive									X 0
Sweeping									X
Trail maintenance	X 0				0				X 0
Infrastructure development									
	0	0	0				0		0
	0								
		0							
		0					0		
		0							
		0							
			0						
Promotion									
Promotion (general)		0	X 0		X 0				
Provision of services									
Interaction with tourists					X		X		X X
Provision of services (general)					X				
					0		0		
Regulation and policy									
Enforcement	X 0								
Lead agency	X								
Legislation	X								
Permission system	X						0		0
Policy development	X 0	0		X			0		
Regulations/policy	X 0								
Other									
				0				0	0
	0							0	0
		0					0		
	0				0			0	0
		0							
		0							
Planning				X					
	0							0	0

Table 15 Assigning responsibility for current and future roles. X indicates a current role. O indicates who should be filling the role in the future.

Monitoring is one of many aspects of conservation activities that people identified as being important. The role of conservation as assumed by the Forest Department could be enhanced in several ways. The current level of monitoring could be improved by hiring locals for check post positions, establishing check posts at all major entry points to the NDBR, and providing incentives for the reporting of trespassers and poachers. Waste management activities could be improved by involving tour operators and other communities outside of the Valley of Flowers. Finally, ensuring that conservation values are shared with all of the stakeholders, including tourists would be seen as a benefit to future development.

Many of the considerations for the future indicate that the Forest Department should play a major role in capacity building, with the ultimate outcome being the decentralization of tourism. This would require improving public participation and recognizing that a blanket approach to community development will not address the nuances and specific issues of each village. It would also require measures to ensure that all capacity-building efforts include meaningful follow-up and evaluation to determine if the efforts were successful.

Enhancing safety practices in adventure tourism is also something identified as a potential role for the Forest Department. This falls in line with their current role as a regulator of activities. Other areas that respondents viewed as important in terms of rules and regulations is the establishment of guidelines for trekking that are similar to the guidelines for mountaineering. Most believe that the Forest Department needs to continue its role of policy development, which could be enhanced by seeking the input and expertise of other players in the industry.

In terms of its ability to collect and distribute fees, several items were identified as issues for the Forest Department to address. First, there was a strong expressed need to improve accountability and transparency with respect to the fees collected. This is especially pertinent in the Valley of Flowers, where a large sum of money flows through certain community members hands. Additionally, there is an indication that the fees collected, be they the Valley of Flowers or elsewhere, should be somehow linked to the services for which they are collected. For example, part of the ecofees distributed to the *mahila mangal dals* could be linked to tourism-related developments. Additionally, a portion of the ecofees could be distributed to the tour operators to partake in annual trail maintenance activities. Camping fees could be allocated for the improvement of campsites, and so on. Certainly there has been recognition that the misuse of funds and corruption have been identified as concerns, and linking the fees collected to improvements in the services rendered would help to improve transparency within the system.

On the whole, the Forest Department will likely continue to be viewed as the lead agency for adventure tourism development. While it should continue to be involved in development through a variety of means, no one mentioned the department's potential role in tourism planning. While planning may be inherent in some of the activities the Forest Department pursues, there was no evidence to support the idea that planning for tourism development is occurring in an organized and integrated manner. Given the complexities of the tourism industry, it seems important that somebody assume the responsibility for the overall planning for development.

5.3.1.2 Proposed roles for Uttaranchal Tourism

Planning was only mentioned by Uttaranchal Tourism and was only identified as a current role. While respondents indicated that Uttaranchal Tourism should increase its role in the development of adventure tourism in the area, little was said in terms of what activities they could be undertaking. Their potential list of responsibilities seem to be lumped in with other players, ranging from the provision of accommodation options, to establishing a handicraft industry, to assisting in employment generation.

Certain respondents suggested that Uttaranchal Tourism's role should be limited to promotion. This could include the provision of a tourist information centre in Joshimath, with staff capable of answering tourism-related questions. Additionally, the department could be of assistance by providing other service providers like tour operators with promotional materials. The Uttaranchal Tourism Policy (2001) delineates numerous strategies for implementing a promotional campaign, providing a sound basis for assuming this role.

Others respondents recognized that adventure tourism is well within Uttaranchal Tourism's realm for planning and development. The focus however, seems to be geared to other locations and activities, for example a booming rafting industry near Rishikesh. This does not mean it should keep its focus on other regions, simply that it has the ability to apply its expertise from other regions across the state. In the case of the NDBR, this will require the integration of planning activities with the Forest Department, a task which could prove challenging given the current adversarial relationship between the two agencies. Uttaranchal Tourism however, has expertise in hospitality and planning that the Forest Department lacks making the fostering of a positive working relationship an asset to the development of the industry.

5.3.2 Proposed roles for the private sector

A quick glance at Table 15 shows that there is a big gap between what the private sector is and could be doing. The list of current and potential roles that various players from the sector could be assuming is lower than any other sector. While there were various suggestions as to how the private sector could become more involved in the development of adventure tourism in the area, there are likely more ways in which the sector could become engaged in the development of adventure tourism than were mentioned by the respondents. Many of the roles identified that the private sector could assume were similar to those suggested as responsibilities for public agencies to fill. Certainly there is potential for the private sector to become involved in infrastructure development, accommodation provision, foreign exchange services, and the handicraft industry. Other recommendations included relying on the expertise of the private sector, such as from tour operators for the development of safety standards for adventure tourism activities.

5.3.2.1 Proposed roles for the tour operators

Several recommendations were made to increase the current role of the tour operators. Certain suggestions were geared towards the tour operator's interactions with tourists, such as providing them with education on culture and the environment. As tour operators have the greatest amount of contact with the tourist, this is certainly an essential role for them to fulfill. Establishing set rates was another way to improve the interactions with tourists, as set rates would prevent tourists from having to bargain, as well as prevent potential disagreements between communities along the trail who may charge different amounts for their services. Other comments suggested a role for tour operators in capacity-building activities, such as training locals to be guides for adventure tourism.

Finally, including the tour operators in conservation activities such as trail maintenance and waste management, was cited as a role for the future. A way in which the above tasks could be accomplished could be through the establishment of a more formalized union or association of tour operators, with a clear mission and objectives for operation. This body could act as the main contact point for others in the industry.

5.3.2.2 Proposed roles for the NGOs

Very few recommendations were made for proposed roles for NGOs. While this could reflect the limited involvement of NGOs working in the region, it could also suggest that people do not currently recognize the potential for NGO involvement within the industry. There are however, many roles that NGOs could play considering that they have expertise in terms of capacity-building and conservation. They could in fact, assume many of the roles that currently fall within the realm of the Forest Department. Roles identified by respondents for NGOs to fill are largely conservation related, such as monitoring and assisting in determining the area's carrying capacity for tourism activities cited.

5.3.3 Proposed roles for the civic sector

While the communities consulted during the study played different roles and had different aspirations for development, in each case there is great potential for the role of the civic sector to expand. While capacity building will be necessary in order for the communities to broaden their roles, there are many ways in which the communities can increase their current involvement. The notion that policies need to be driven from the ground up, as was suggested by several respondents with statements such as “Programs have generally been top-down and should shift to a grassroots approach – devised from

the villagers, working with their strengths and abilities” (Respondent 11cm, 27/08/04) or “Policy should be self-initiated” (Respondent 51ngo, 23/10/04) support the idea that the communities need to be more involved in the generation of ideas for planning.

5.3.3.1 The Valley of Flowers

As the EDC is the primary body dealing with activities along the trail, it has the potential to be the lead organization within the community for future adventure tourism development. Its role in managing the trail could be expanded with more positions at check posts and interpretive posting, something which many of the community members identified. This could include more measures for educating tourists on things like conservation and culture.

In terms of the EDC’s general activities, there are certain measures that could be taken to improve the overall functioning of the organization. First is a strong need to improve accountability for the total income collected from the ecofees along the trail, as well as the EDC expenditures along the trail. Currently, accounting is done behind closed doors, and there is a strong need to increase transparency if the community is expected to entrust such large sums of money to a small committee of individuals. As one respondent noted “Everyone is only concerned about money. The EDC accounting is done behind closed doors. There is corruption at many levels. This is India... There is a need for transparency” (Respondent 64cm, 05/11/04). Additionally, measures should be taken to make EDC meetings more accessible to all community members. This would require some of the meetings to take place in Bhyundar, so as to allow women to attend.

The women in the Bhyundar Valley would like to be involved in activities, but were not likely to include themselves as potential guides. While they have been offered a

shop on the trail by the Forest Department to sell handicrafts and provide local food and beverages, many of the women suggested that they were too busy with their duties in the home to be sitting in a shop. They did however, see partaking in the cleaning of the trail as a means of gaining extra income. One suggestion was that the women could clean the trail at the end of the *Yatra* season each year, because once the sweepers are dismissed when the trail closes and the crops that line parts of the trail are harvested, there is still a considerable amount of debris to be removed. Finally, the women believed that the young unmarried women should continue to fill positions such as staffing check posts along the route and working at the interpretive centre in Ghangria.

The list of potential roles en route to the Valley of Flowers seems to provide several options for increased participation, through activities such as trail maintenance, interpretive programs, education of the tourist, and plantation projects (for slope stabilization). Such activities could also be implemented in other areas of the NDBR, including near the Dharasi Pass.

5.3.3.2 Dharasi Pass

The first thing that needs to be addressed by the communities near the Dharasi Pass is the relationship between Lata and Tolma. While the relationship is generally a positive one, the activities that each are pursuing towards tourism development are not integrated in any manner. Since the villages lie at either end of the trail, it would be of benefit to ensure that the services available and the rates being charged are similar, so as not to encourage competition to a detrimental level. In general, the communities have a similar vision for the development of tourism, so it would be beneficial to ensure that the two villages stay on the same page.

In both Lata and Tolma, there is a desire to expand the homestay program so that it can be of benefit to the entire community, perhaps by setting it up on a rotation system. Both communities would also like to be more involved in monitoring, perhaps in the staffing of checkpoints, and they believe that they would make better Forest Department employees than the non-local field staff currently employed. “They are not monitoring effectively” stated Respondent 15cm, (05/10/04), to which Respondent 11cm (27/08/04) added “Locals would make the best monitors for the area...A cow from the plains cannot adapt to the mountains. Only a cow from the mountains can survive.”

The women near Dharasi Pass also expressed interest in monitoring, and would be suitable candidates for such positions as they are often working in the forests and fields that surround the villages. Other ways in which they saw women being involved in the adventure tourism industry is in selling handicrafts to the tourists that come through, and acting as hosts. The women near the Dharasi Pass also included young women in the potential body of guides employed by the tour operators.

5.4 Decision-making in the future

While the respondents identified a large number of gaps between the current and potential state of adventure tourism in the area, they did not indicate that there will be changes in the way decisions are made about the implementation of new activities or trekking routes. Since there is currently no formal process for approving the expansion of activities or trekking routes in the NDBR, some consideration should be given to developing a process for implementing new activities. When one considers the desire to expand the adventure tourism industry through the development of new routes, such as

Khakbusindi, and activities, like high altitude cycling, it is evident that a process for implementing new activities is necessary.

Take for example, the desire to popularize the trekking route of Khakbusindi. The route, which covers alpine meadows, dense forest, and glacial moraines, leads to a high altitude lake that one first views from a ridge at the highest point of the trek, at 5087 meters. Residents of Bhyundar would like to see the route developed as a means to increase the options for tourists visiting the area, and provide an opportunity for local guides. The ultimate outcome would involve a widened and semi-hardened trail so as to make the route clearer, some signage, designated campsites with the potential development of huts, and the construction of permanent structures for river crossing.

The location on the route that caused the greatest concern to respondents is near a glacier, where one is required to either cross the glacier itself, or cross the glacial (sometimes raging) river below without a bridge. The construction of a permanent bridge to pass this section of terrain is one option. The other option indicated by some respondents, is to create a system to divert the river well below the glacier, which would require the subsequent development of a trail on the opposite bank, where the terrain is currently unsuitable for hiking. While the glacier at this point in the trek makes the route precarious, there seems to be a lack of forethought as to the implementation of such options. Which structure would be best and why? What are the implications of damage to such a structure from the occurrence of frequent landslides? Who would be responsible for the maintenance of the structure? Clearly, any of the above options requires serious consideration before being implemented. There is, however, no process for making such decisions, so any and all of the options may be attempted by the community if funding is

secured. Certainly, a decision to develop a trail should be subject to some sort of formal decision-making process.

Such is also the case for the proposal to develop high altitude cycling in the Niti Valley. Such a scheme has been suggested in the Forest Department's long-term vision for development in the NDBR in the Landscape Management Plan (Banerjee, 2003), as well as being identified by the Alliance for Development which works with one of the villages along the road, although no community members mentioned the scheme. One respondent suggested that the Forest Department had in fact taken the idea for high altitude cycling from the NGO, constituting a "different type of piracy" (Respondent 51ngo, 10/23/04). (The Forest Department's response to this claim was that the plans were not being developed, so they would take responsibility for implementation).

Regardless of the initiator, a complete strategy for the development of the activity, with considerations that encompass the environmental, socio-cultural, and economic impacts, not to mention the technical and safety considerations for such a scheme, is still lacking.

The activity would take cyclists up the road from Joshimath, through the Niti Valley, ending in a village named Malari. The route was selected on the basis that it is not a national highway, traffic is limited, and it offers spectacular scenery. The Forest Department would take responsibility for setting the rules and regulations for such an activity, along with designating campsites and homestays en route, although the logistics of the activity would be left in the hands of the tour operator.

There is however, no one with actual experience with cycling working for the Forest Department. Additionally, the tour operators identified by the Forest Department as being likely to take initiative for planning expressed no interest in developing a high

altitude cycling scheme. There was no indication that the NGO that also saw the opportunity for high altitude cycling in the area will be involved. It is interesting to note however, that another tour operator with associates working in other parts of the state was able to provide a complete itinerary for such a trip. As the organization had in fact operated the cycling tour in the past, they were able to address many of the questions about the logistics of such a trip as well as the considerations they took in undertaking the activity.

The examples of the development of a trekking route or the implementation of a high altitude cycling scheme help to illustrate the lack of a decision-making process to implement new activities. The example of the trekking route to Khakbusindi helps to demonstrate the need for consideration prior to the construction of permanent structures, while the example of a high altitude cycling scheme shows the need for development that involves more stakeholders than the proponent of an activity. Such considerations are likely only the tip of the iceberg in terms of what things need to be addressed before a plan is implemented. But as there is a lack of a formal decision-making or planning process, it would not be surprising if development proceeds if someone raises the funds to support the activity.

How, then, should decisions about the implementation of new activities or trekking routes take place? *The Guidelines for Mountaineering Expeditions in Uttaranchal* (Government of Uttaranchal, 2004) state that environmental and socio-economic impact assessment of mountaineering activities should be completed every two years. It also states that the carrying capacity of the most popular routes needs to be determined. In fact, determining carrying capacity is the term most often offered by state

officials in terms of what needs to be accomplished to assist in decision making for adventure activities. The limitations of carrying capacity are acknowledged by some, such as Respondent 54s (24/10/14) who admitted “it is a difficult (concept) to quantify or determine...there is a need for checks and balances.” Respondent 52s suggested that the current lack of conclusive data is no reason not to set regulations, saying “No one is determining carrying capacity as of yet, but the absence of data is no reason not to have regulations, benchmarks. You can always fix a number, a conservative estimate, until the carrying capacity is determined. As conclusions of research direct, we can increase or decrease the number of tourists allowed in the area.”

Since carrying capacity has limitations, as is acknowledged in the literature and by some respondents, there may be a need to adopt a different planning tool. While the LAC Framework (Stankey, 1985) that was developed in response to dissatisfaction with the carrying capacity approach could be considered, there are reasons for which it may be difficult to implement. This lies largely with the fact that there is disagreement about the goals for development in the area. While the Forest Department views conservation as its primary objective, others see adventure tourism development as a means of prosperity, thus bringing up the classic dilemma of conservation versus use. As the Forest Department is recognized for its top-down approach in planning, and current levels of public participation are ultimately influenced by the department’s desires, the LAC approach may be unsuitable given that intimate public participation is required (McCool, 1996).

Given the weaknesses of the aforementioned approaches, and the fact that various forms of impact assessment are mentioned in various guiding documents for the area, EA

may be a tool worth considering for future developments. In fact, there is even a current example of the use of EA for a trekking route in the area in the *Master Plan for Ecotourism in the Valley of Flowers – Hemkund Belt* (Tata Consultancy Services, 2003) that was prepared on behalf of Uttarakhand Tourism. The plan was devised to determine mitigation measures and environmental specifications to be included in all phases of development in the area. Its objective was to minimize the extent of environmental impacts as well as improve the environmental conditions through participatory management involving the local community (Tata Consultancy Services, 2003).

The EA also took a conventional approach, relying on literature reviews, detailed scientific analysis, and discussion with government agencies, surveys with locals, and expert input (Tata Consultancy Services, 2003). Since such traditional methods and tools (such as geographic information systems, standardized indices, water quality testing, etc.) are not really accessible to those living within the area, and given the high cost associated with hiring consultants, the EA may not be the best example or model for future endeavours. The small-scale development that adventure tourism activities entail suggests that community-based environmental assessment (CBEA) (Spaling, 2003) likely provides a suitable option.

CBEA could address the basic aims of EA, such as identifying adverse consequences of development so that they can be avoided, mitigated, or otherwise taken into account. It could help to address how plans could be implemented and monitored in a way that involves all of the potential stakeholders. As CBEA draws assessment methods from PRA, it would also seek to embody its principles in implementation, such as seeking diversity, optimal ignorance, triangulation, a reversal of learning, and being rapid and

progressive (Beebe, 1995; Chambers, 1992; Mukherjee, 1993). While CBEA efforts would likely require an outside expert at the onset, a role that an NGO would likely be able to fill, plans for its use could be devised such that locals are empowered to undertake future assessment activities without outside guidance. It is a method that enables capacity building in the process.

5.5 A summary of proposed roles

While there are undoubtedly numerous ways to increase and improve the involvement of the various players, there is a range of roles that need to be assumed. Table 16 demonstrates how each of the current players in the industry could add to their list of responsibilities. The table also indicates that there is risk for duplication of roles, as both the private and public sectors are identified as having the potential to undertake new responsibilities. This duplication also appears in Figure 7, which demonstrates that adding roles to the list of activities assumed by each of the players will add complexity to the current state of adventure tourism. In fact, Figure 7 seems far more complicated than its predecessor in Figure 6. Despite the complexity that results from adding responsibilities, the tangled web that results has many strengths.

Unlike the model describing the current web of relationships, Figure 7 allows for the other players in the industry to play a greater role. While all of the players are still influenced by the regulations of the Forest Department, there are more opportunities for everyone to partake in activities. This is reflected in the increased linkages between the players in the industry. Such linkages indicate that there is more reliance on the expertise that already exists within the adventure tourism industry, as opposed to the model in

which the Forest Department plays the dominant role. These linkages could also lead to improved cross-sectoral communication.

	Player	Current Role	Proposed role
PUBLIC	Forest Department	Conservation Regulations Capacity-building Collection of fees	Improving upon current roles Standardization for safety Increasing access to Nanda Devi Using CBEA to implement new activities
	Uttaranchal Tourism	Planning Promotion	Improve promotion Develop a tourist information centre Develop a handicraft industry
PRIVATE	Tour Operators	Provision of services Employment Promotion	Set industry rates for services Participating in guide training Trail maintenance activities Education of tourists
	NGOs	Capacity-building Conservation	Determine the carrying capacity of sites Facilitate the CBEA process
	Other private enterprise	Provision of services	Develop infrastructure Develop a handicraft industry
CIVIC	Dharasi Pass	Income generation (guide/porter, homestays, ecofee recipients) EDC	Decentralize adventure tourism Increase involvement in conservation activities & monitoring Educate the tourist
	Valley of Flowers	EDC Trail maintenance Income generation (guiding, ecofee recipients)	Develop a handicraft industry Involvement in CBEA

Table 16 A summary of current and proposed roles of the public, private and civic sectors

While the Forest Department continues to play the most prominent role for the public sector, Figure 7 provides greater opportunities for Uttarakhand Tourism to assume responsibility. Connections between the department and the communities are thus created, as are the links to the tourist. The issue that Figure 7 fails to address is connecting planning activities to the other players in the industry. Planning remains a role

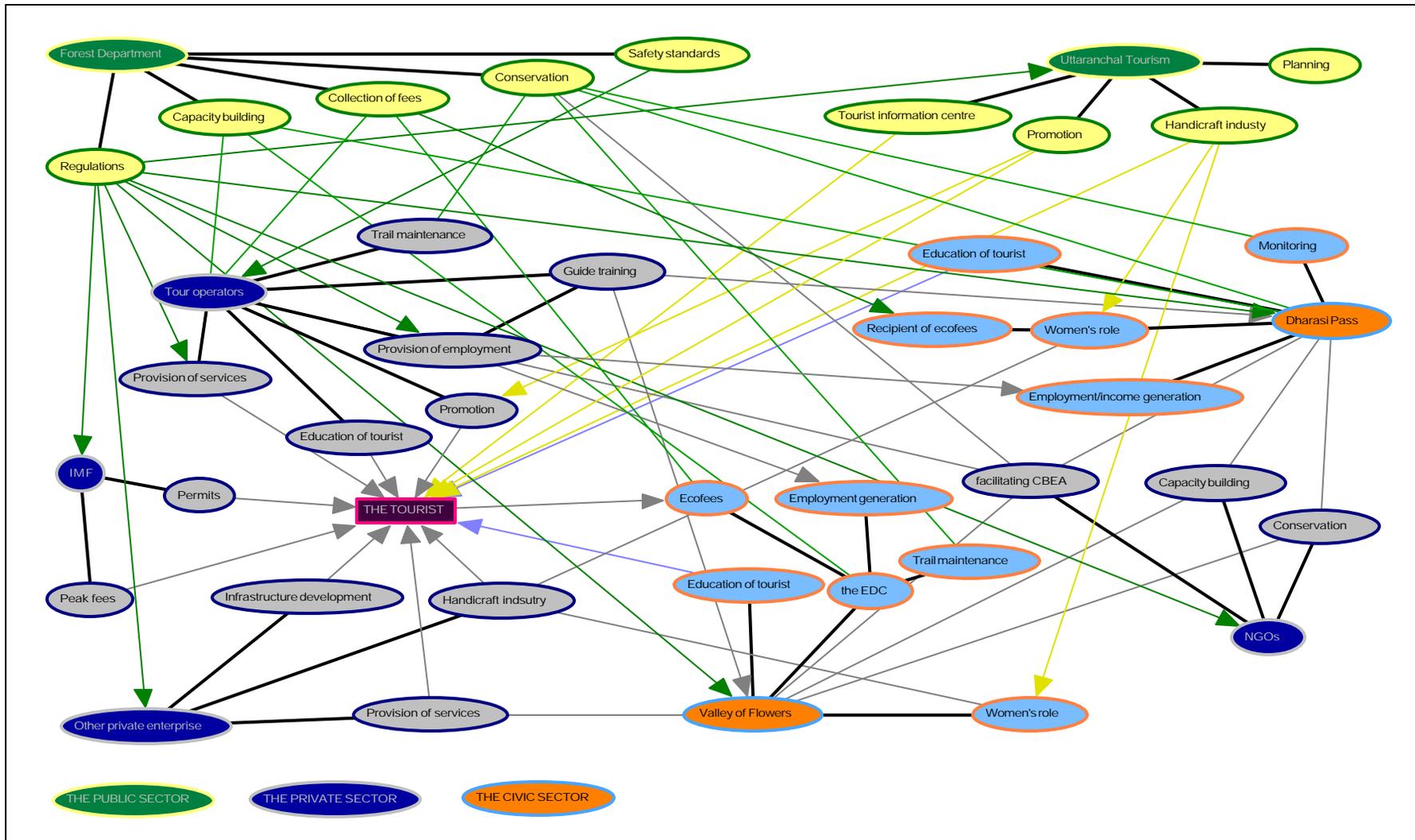


Figure 7 The potential web of relationships with the addition of new roles in adventure tourism (Arrows indicate when a relationship is directed by one player, while no arrows indicates a reciprocal relationship. Solid black lines link the players to the roles.)

that is an outlier and ways to link such activities to the adventure tourism industry in the NDBR need to be addressed.

In comparison to Figure 6, there are increased roles for the civic sector to fulfill. There are also increased linkages between the communities and the other players in the industry. This reflects the desire and need to ensure that communities become a viable part of the adventure tourism industry. If the long-term vision for adventure tourism continues to be aimed at a decentralized adventure tourism industry, the roles of the communities can be augmented over time through capacity building towards such ends. It will be important however, that the communities have input in such initiatives as they should be able to direct the activities that influence their lives.

There are also marked increases in the roles of the private sector. This increase in roles also creates linkages to the other players in the industry. These linkages help to connect the tour operators to communities through activities beyond the provision of employment, such as through capacity building (e.g. guide training), or through the facilitation of CBEA. There are also improved links to the Forest Department's role of conservation, an activity that will ultimately benefit everyone involved.

Finally, note that there are more links to the tourist, who held a marginal position in Figure 6. This is accomplished through activities such as education efforts geared towards tourists, or the promotion of a handicrafts industry, providing links to the public, private, and civic sectors. Creating linkages to the tourist seems essential, as tourists are an absolute requirement for a successful adventure tourism industry.

While the increased complexity of Figure 7 helps to improve upon the current adventure tourism industry, there are still some considerations that require addressing.

For instance, there is duplication of roles which could result in redundancy if not coordinated. What is generally required is planning of some sort to ensure that development of the adventure tourism industry does not result in disorder, or in a position that the destination is no longer desirable by tourists. This will require the coordination of activities and services, requiring the input of all of the stakeholders.

The results indicate that the sorts of challenges that the adventure tourism industry is and will be facing are already recognized by the various players. The respondents were able to identify some of the current constraints, described who should be assuming which roles in the future, and offer solutions for the advancement of adventure tourism in the region. The expertise is present, but it is not always accessible, known to the other players, or implemented in an effective way. Therefore, the majority of the recommendations in Chapter 6 flow from the responses provided by the various players in the industry. The recommendations build on the current strengths of the various players in the industry, as well as incorporate the expertise provided by the literature.

CHAPTER 6. LINKING TODAY WITH TOMORROW: RECOMMENDATIONS FOR THE PUBLIC, PRIVATE, & CIVIC SECTORS

6.1 Introduction

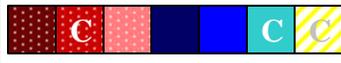
Uttaranchal; *Dev Bhumi*, the abode of the gods; the majestic Himalaya: a virtual playground for adventure enthusiasts. As climber John Roskelly (2000, pp. 226) writes on his experiences in the region “I’ve tasted adventure on the highest peaks on Earth and it’s impossible for me not to go back.” Certainly, with advances in technology bringing more and more people to the remote regions of the world, communities in areas such as the Nanda Devi Biosphere Reserve (NDBR) stand to benefit from an influx of adventure seekers in the future. The challenge remains to develop an industry that is sustainable in the long run, i.e., that ensures the health of the ecosystem, minimizes negative socio-cultural impacts, and ensures the equitable distribution of benefits.

Having spent several months becoming acquainted with the geography, culture, and various stakeholders involved in adventure tourism in the NDBR, it is concluded that the area has the potential to develop a successful and sustainable adventure tourism industry. The expertise required for the development of the destination is present, as is indicated repeatedly by the insight provided by members of the public, private and civic sectors. It will require the various stakeholders to continue along the trail to integrated development that relies on the strengths and abilities of all of those involved. As numerous respondents pointed out, the future of adventure tourism “is very bright” but it will require meaningful participation of the various stakeholders so as to ensure the equitable distribution of benefits and minimization of potential negative impacts.

6.2 Revisiting the roles

The current and proposed roles of the public, private and civic sectors in the adventure tourism industry are summarized in Table 16. While the table provides a basic description of who is playing which role and who could be assuming other necessary roles, a more realistic picture of the adventure tourism industry is provided in Figures 6 and 7. These figures help illustrate the complex web of relationships among the various players in the industry, and also help to demonstrate that simply adding to the list of any given players' roles will not automatically result in an improved adventure tourism industry. As such, there is still the need to identify roles beyond what is proposed by the respondents.

The roles suggested in Chapters 4 and 5 can be summarized by the themes of capacity building, collection of fees, conservation, employment generation, infrastructure development, planning, promotion, and regulation and policy development. Table 17 begins to identify the potential roles for the different players in the adventure tourism industry to undertake. While certain roles, such as the collection of fees, or the responsibility for promotion still only fall in the hands of a select players, roles such as capacity building and employment generation involve a greater number of players than before. Other roles, such as conservation, begin to include all of the players as it will be of benefit to have all of the sectors on board for activities geared towards such aims. What will be important for future development is that there is cooperation and coordination among the various players.

Roles	Players
Capacity-building	
Collection of fees	
Conservation	
Employment generation	
Infrastructure development	
Planning	
Promotion	
Regulations and policy	

 Public Sector	 Private Sector	 Civic Sector
 Forest Department	 Tour operators	
 Uttaranchal Tourism	 NGOs	C Indicates a current role

Table 17 Potential involvement for the players in various roles

Table 17 indicates that the Forest Department should reduce its involvement in certain respects. While the department should still play a prominent role within the industry, its role in certain activities should be delegated to other players. The Forest Department as a regulator should not be able to hold the position of a primary developer. If the desired outcome for the adventure tourism industry is a decentralized system that supports sustainability, as the data and literature suggest, then the Forest Department will have to reduce its current influence over the activities that are taking place.

While the current legislation supports the role of the Forest Department as a regulator, it is necessary to acknowledge the fact that the NDBR is a conceptual framework and does not come with any legally binding status. While the core zones are regulated by the Wildlife Protection Act (1972) and other areas by the Forest Conservation Act (1980), the establishment of a biosphere reserve does not increase the authority of the department in any way beyond the aforementioned legislation. What the distinction of a biosphere does provide the department is access to funding from external sources for development initiatives. These sources of funding, such as 18 million rupees from the Vishnu Prayag mega hydro project, are currently being used as a means for the Forest Department to direct development to suit its own objectives. As such, there is a conflict of interest that needs to be addressed.

In Table 17, the Forest Department is not included among the players to assume capacity-building activities. While the department will likely continue to be a major source of funding for such activities, the responsibility of implementation of capacity-building initiatives should be delegated to others within the industry. Fortunately, the expertise required for such activities is currently present in the NDBR, and as such, the

Forest Department will be able to rely on the strengths of the other players for the development of the area. The expertise available within the industry is also suggested by Table 17, as many of the players are currently capable of assuming greater responsibilities.

Table 17 suggests many more entry points for Uttarakhand Tourism to become involved. As the public agency with expertise in hospitality, promotion and planning, its abilities should be drawn upon to assist in numerous tasks. Skills associated with hospitality can be imparted to the private and civic sectors. Promotional abilities can be used to market the destination to both domestic and foreign consumers. Uttarakhand Tourism could also help to develop the promotional abilities of others in the industry by providing training to tour operators.

In terms of planning, Uttarakhand Tourism has access to resources that are not currently being used. This is demonstrated by the assortment of Master Plans that the department has prepared with the help of external consultants. These Master Plans attempt to address many key considerations of the industry from a planning perspective. The plans provide assessments of the current situation and recommendations for the future, but effective implementation has been lacking. In the NDBR, the Forest Department is unlikely or unwilling to use the plans. While part of this may lie in its disapproval of certain recommendations, the Forest Department might also feel as though it was unable to have significant input into the plans, thus resulting in a total dismissal of the entire plan. As such, future Master Plans should seek to incorporate the input of the Forest Department.

The tour operators are the second group that have a great deal of expertise. They have qualifications and experience with adventure activities that are second to none within the current industry. Tour operators possess the technical skills required to address the element of risk associated with adventure tourism industry. This expertise can be used in the establishment of safety practices and standards, as well as for training future guides. Another important feature unique to the tour operators is the fact that they have an understanding of the business of adventure tourism. Their activities require interaction with the tourists and as such, they have an insight into the industry that very few have access to: an understanding of the tourist's perspective. Such knowledge can be used for planning for the tourist's needs, which is of significant importance since the industry is ultimately fuelled by tourist arrivals. Additionally, this relationship with the tourist can be used for education purposes that focus on the conservation and culture of the area.

NGOs are another player that should be involved on a greater scale. This seems especially useful as the overall objectives of the NGOs working in the area fall in line with Forest Department roles associated with conservation and capacity building. The NGOs have expertise in working with rural communities and in many cases already have positive working relationships with the villagers. While the Forest Department could rely on its own staff to accomplish such tasks, it makes perfect sense to use the wealth of experience and information that the NGOs can provide. They are identified in the literature as one of the stakeholders to involve in development (Sproule & Suhandi, 1998), and are certainly a group with whom the Forest Department should seek to establish partnerships.

Another resource which the Forest Department could draw upon is a current member the private sector. While there are numerous opportunities which the private sector could develop in terms of infrastructure and service provision, there is one actor in particular which the Forest Department should seek to better involve: the Sikh Gurudwara. With temples and accommodation located at Govind Ghat and Ghangria, the Sikh community could become a major player in the development of the trekking route to the Valley of Flowers as they have access to financial resources from their followers. This is reinforced by the donation of 120,000 rupees for the clean-up of the trail. The Gurudwara has listed numerous items it would like to see developed in the area, from reliable phone lines, to a hospital, to railings along certain parts of the trail, to improved lighting along the trail. While the Forest Department is at present reluctant to allow development of any sort to proceed, citing conservation objectives as its primary concern, the department should begin to recognize that certain developments desired by the Gurudwara would be of benefit not only to Sikh pilgrims, but also to the local communities. As such, the department should seek to develop a partnership with the Gurudwara to enable the development of amenities that are of benefit to all, for example, medical facilities. The Forest Department could rely on EA regulations to ensure that development does not impede conservation objectives.

By identifying the resources and expertise that presently exist within the industry, the Forest Department can give itself access to a wealth of information and abilities. Relying on the strengths of those who are already involved in the industry will alleviate some of responsibilities the department is currently required to carry, and can ultimately lead to a system that is less centralized. It will also help to establish the mutual

relationships that foster a sustainable tourism industry (Sproule & Sunhandi, 1998).

Having defined the roles of the various players, what is now required is an effort to work towards partnerships that reinforce the benefits of tourism development (The Cluster Consortium, 1999). Critical to this will also be the meaningful involvement of the communities within the NDBR.

6.2.1 A focus on the civic sector role

The literature and data suggest that local involvement is critical to the development of a sustainable tourism industry. As such, the role of the civic sector should be given particular consideration when making recommendations for the future. The evaluation of current community involvement in Chapter 4 suggests that the Forest Department is limiting participation through its authority. Steps need to be taken to ensure that participation is allowed to take a functional form that allocates a degree citizen power. It is critical that the Forest Department recognize that a failure to achieve open and equitable participation at the outset of tourism development can limit the long-term success of a destination (Sproule & Sunhandi, 1998).

Since individuals are likely to hold different views on what constitutes ‘good process’, the design of the public participation needs to reflect the needs and desires of potential participants. The Forest Department needs to recognize that the local communities are experts in their surroundings and as such can make a real contribution to the development of adventure tourism activities. As one respondent noted “We are natural adventurers. We can better promote such activities. Some locals may be illiterate, but they understand their life; they understand their responsibilities. Someone may have a

certificate in tourism, but it does not equal the experience of locals” (Respondent 49cm, 17/10/04).

Badola et al. (2002) suggest that while no participation level is bad to begin with, ideally the public should be acting at the higher levels of participation. Improving the level of participation over time requires constant efforts to increase involvement to the maximum extent possible. Particular attention needs to be given to the perception of legitimacy and fairness within the process (Weber et al., 2001) This can included steps to ensure that decisions are open to public involvement and scrutiny early in the process as possible, that concerned stakeholders receive equal treatment, and that the entire process is facilitated in such a manner that fairness is embedded in all activities (Gibson, 1993).

Table 17 suggests that the civic sector should be more engaged with the various roles available. Generally speaking, the villages in the NDBR should be actively engaged in planning for tourism development in their communities. This includes having input into capacity building initiatives (e.g., the communities could set the development priorities themselves), which the literature suggests will help foster a sense of respect for the resources on which the activities depend, along with a sense of community ownership (Briedenhann & Wickens, 2004). Long-term, capacity-building initiatives should be looking to develop the abilities of locals in ways that go beyond basic roles and ultimately empower the communities to become the managers of the activities that occur in their region.

Efforts to improve the involvement of local communities must come with the recognition that a blanket approach to developing adventure tourism activities in the NDBR is unlikely to be successful. The villages considered in this study demonstrate that

despite sharing a similar culture and geography, the communities in the NDBR face different realities, and as such, have different desires for the development of adventure tourism activities. This will mean that each community in the NDBR will need to be able to have input into capacity-building initiatives before they are implemented. There is no point in training a village for community-based tourism purposes if they are not interested in development towards such ends.

6.3 Adventure tourism and sustainability

The results presented in Chapter 4 suggest that the adventure tourism industry in Joshimath and the surrounding areas is only beginning to emerge. With the Forest Department assuming the lead role, development is occurring at a modest pace, allowing for the development of rules and regulations that address concerns for conservation, community participation, and tourist behaviour. While efforts are being taken to regulate activities, there is little evidence to suggest that a systematic approach to planning for the adventure tourism product is being taken.

According to Butler's (1980) destination lifecycle model, the location is situated at the beginning of its development curve. It is a destination that appeals to the Venturer, according to Plog's (2001) psychographic model, featuring limited amenities and few tourists especially as one travels further from Joshimath. In this regard, as a destination, the NDBR is in an ideal position to attract the adventure-seeking tourist. What is critical at this point is an approach to planning that rests on the true qualities of the destination that attracted tourists to the area in the first place (Plog, 2001).

Given the current situation, there is great potential for adventure tourism in the NDBR to become an example of a sustainable tourism destination. But what exactly does

this entail? The fact remains that there are no concrete examples of a destination that provide a model for sustainability. While examples have emerged that link specific components of the industry to sustainable actions, this research fails to address sustainability on a larger scale.

Ecotourism continues to be the niche in the tourism industry most often associated with sustainability. At present, the activities in the NDBR fail to meet some of the tenets that define ecotourism. For example, there is no evidence that ecological education is provided to the tourist, no monitoring aimed at ensuring activities have a minimal impact on the host environment, and as described by Chapter 4, no evidence to support the active involvement of local residents in all phases of program development (Sirakaya et al., 1999; Wunder, 1999). Certain features associated with ecotourism are present, such as the commitment to environmental protection and conservation, the securing of significant economic participation by local resource managers, and the beginnings of economic and social benefits to host communities (Sirakaya et al., 1999; Wunder, 1999).

Given the current situation in the NDBR, the concepts that define ecotourism and sustainable tourism development should be pursued as the ideal, and should provide the philosophy to guide development in the future. That being said, what will be necessary is the development of meaningful partnerships that reinforce the benefits of adventure tourism development, a critical element which the data suggest is currently lacking. This will require the various players in the industry to reconsider their current roles, and look for ways to ensure that development occurs in a way that leads towards sustainability.

6.3.1 Involving the stakeholders in planning and decision-making

At present, there is no systematic approach for determining the location of adventure tourism activities or for the involvement of the various stakeholders in such a decision-making process. Activities are developed as seen fit by the proponent of the activity and as such, little consideration is given to the potential impacts of development. The lack of guidelines of any sort for the implementation of new activities indicates that there is a need for a planning tool that considers the various impacts that an activity could incur. This is of special importance given the sensitive and vulnerable mountain environment in which development may occur (Godde, 1998).

A tool that could be adopted for the development of the adventure tourism industry is environmental assessment (EA). As the developments associated with the industry tend to be smaller in scale, community-based environmental assessment (CBEA) (Spaling, 2003) could be a suitable tool. Figure 8 is a model developed from the literature on EA that is geared specifically towards the players in the NDBR. The model also suggests ways in which the various stakeholders could be involved, thus fostering interaction between the players, which can help in the development of meaningful partnerships.

Given the nature of adventure tourism activities, it is unlikely that an assessment would require more than a screening process. This would require an inventory of the physical, natural, and socio-cultural resources of the area (Fennel, 2003) in order to document the impacts of the proposed activity or route. Assessing the potential impacts against the resources identified in the inventory can help to determine where impacts are most likely to be significant. The magnitude and importance of these impacts should be evaluated, and options to avoid or mitigate adverse impacts should be provided. At this

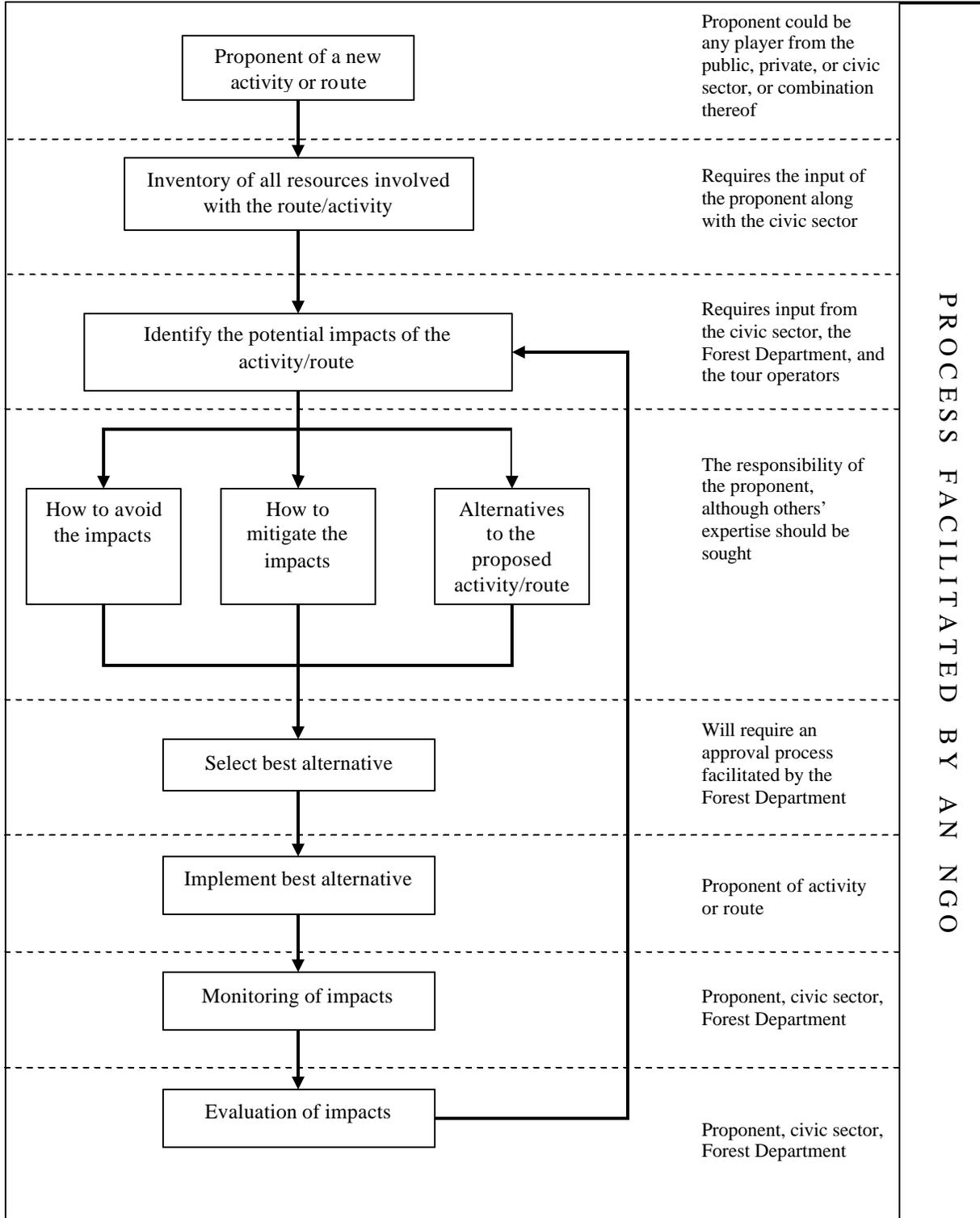


Figure 8 A model of CBEA for the implementation of new activities or routes in the NDBR

point, alternatives to the proposed activity or route should be explored. If the impacts of the proposed activities are significant, and avoidance or mitigation of impacts difficult, viable alternatives should be pursued instead. After the best alternative is selected and implemented, a system of monitoring and evaluation should take place in order to assess the predicted impacts and identify items that may not have been evident at the onset of implementation. At this point, the cycle begins again with the verification of impacts and methods for avoidance, mitigation, or other alternatives.

Figure 8 indicates numerous potential points of involvement for the various players. The entire process should be facilitated by an NGO with expertise in both capacity building and conservation, with the long-term goal for the use of CBEA to eventually be facilitated by members of the civic sector. The proponent of a new activity could be from any of the sectors and would be responsible for working with the NGO to accomplish the steps in the process. After identifying the desired activity or route, an inventory of the resources that would be involved in development would need to be identified. This step would rely on methods drawn from PRA, such as mapping, diagramming, transect walks, seasonal calendars, ranking activities, and so on (Chambers, 1992; Chambers, 1994). At this step, the involvement of the communities in proximity to the new activity or route would need to have input. Not only can they provide the expertise that they hold from living in the area, they can help to identify some of the potential social resources.

The identification of potential impacts should also seek to involve as many players as possible. Using the inventory as a basis for what resources could be impacted,

the process should seek to use information from a variety of sources in order to enable triangulation, as is used in PRA to increase the reliability and validity of the findings (Chambers, 1992). As such, it is recommended that at a minimum, the Forest Department, civic sector, and tour operators become involved. The Forest Department has access to research and monitoring that the other sectors may not have. The civic sector can help to identify their perceived impacts as well as identify ways in which the community is likely to be impacted. The tour operators should have an understanding of the impacts associated with the given activity and as such can be a resource, especially if it is an activity that is new to the area.

The proponent should then seek to identify ways that the potential adverse impacts can be avoided, mitigated or otherwise taken into account. While this should largely be the proponent's responsibility, the expertise of others should be sought if methods to avoid or mitigate are difficult to identify. Who should be consulted in this step should be linked to who identified the potential impact. Based on the information generated at this point, the best alternative should be identified by the proponent.

When the best alternative is identified, the permission of the District Forest Officer should be sought, much like it currently is for activities taking place in the NDBR. Permission for the implementation of new activities or routes however, should not be granted by a single individual. While the approval of a new activity or route falls under the authority of the Forest Department, the District Forest Officer should seek the input of other players in the industry. A committee for the approval of new activities or routes should be established and include, at a minimum, members from the civic sector as

well as the tour operators. Approval of the activity or route should take all of the findings from the process into account.

A similar committee could be formed to be responsible for the monitoring and evaluation of the impacts of the activity. This should include the list of potential impacts as identified prior to implementation, along with impacts that may not have been considered prior to development. Monitoring should take place throughout the course of the activity's implementation with the evaluation of the impacts occurring in the off-season (i.e., between November and May). If the evaluation of the impacts is positive in nature, the activity or route should be continued in the subsequent season. If the evaluation determines that the impacts from the new activity or route are negative, then the process should begin again with the aim of identifying methods to mitigate or undertake alternative options.

The above model is one way to ensure that development of new activities or routes does not occur in a way or at a rate that ends up being detrimental to the industry. The process could also help to improve the relationships between the various sectors by working towards a common end. Ultimately, everyone involved in the industry would like to reap the benefits that tourism could bring to an area, but steps need to be taken to ensure that the impacts of development are taken into account and carefully considered before development surpasses the ability of the area to withstand change. In addition, the model relies on the inherent strengths of the stakeholders and allows for a process that seeks to incorporate the knowledge from various perspectives.

6.3.2 Planning for sustainability on a larger scale

While the above model can offer a forum for decision-making for the implementation of activities, the issue of sustainability needs to be addressed on a larger scale. Although the model presented for CBEA in Figure 8 is based on a project-by-project level, the forum it provides for decision-making could be suitable for planning for sustainable development of adventure tourism activities on the broader scale, if it takes into account the cumulative effects over a broad area, and continues to rely on the inherent strengths and abilities of each player. Planning needs to reflect a long-term vision geared towards sustainability, and could focus on the development of sustainability indicators for the industry.

While the development of sustainability indicators for adventure tourism activities in the NDBR could provide the basis for a research project in and of itself, the following framework can provide a foundation from which such a task could be approached. It is important to recognize that indicators need to reflect local realities, and as such require input from the stakeholders in the NDBR. While the literature can provide insight into what impacts need to be considered, and ways to ensure that indicators are relevant, only local stakeholders can ensure that indicators are appropriate for their circumstances.

The literature suggests that there are three broad categories of impacts associated with tourism development: socio-cultural, environmental, and economic. Impacts may be positive or negative in nature, and the ultimate goal of sustainable tourism is to maximize the former and minimize the latter. As such, indicators should be developed to assess both the potential positive and negative socio-cultural, environmental, and economic impacts.

There are several things to considering when identifying relevant indicators. While the list below provides a basis for identification, the stakeholders should collaborate to determine what criteria could be responsive to their unique social, economic, and environmental conditions (Parkins et al., 2001). When identifying effective indicators, the following criteria should be considered:

- Understandability - do we know what the measure is telling us?
- Relevance - does the measure speak directly to the indicator?
- Accessibility of data - does the data exist and is it retrievable?
- Cost of obtaining data - will the ongoing costs be high or low?
- Temporal comparability of data - is tracking this data over time meaningful?
- Sensitivity - how responsive is the measure to change?

(Parkins et al., 2001.)

Some examples of indicators drawn from other experiences are provided in Table 18.

Impact	Indicator	Specific measures
Environmental	Critical ecosystems	Number of rare or endangered species
	Use intensity	Intensity of use during the peak season (persons/hectare) vs. off-season
Socio-cultural	Social impact	Ratio of adventure tourists to local population (peak vs. off season)
	Involvement of stakeholders	Existence of a regional planning committee and number of active participants from the various sectors
Economic	Tourism contribution to the local economy	Proportion of total local economic activity generated by tourism
	Employment from tourism	Number of individuals employed within the tourism sector

Table 18 Examples of sustainability indicators (Consulting and Audit Canada, 1995; Parkins et al., 2001)

Clearly the development of indicators will be a substantial task, but by undertaking such activities the long-term sustainability of the adventure tourism industry can be better ensured. The development of indicators will require a coordinated approach that includes the input of all of the stakeholders. The forum in which the development of indicators occurs can help to foster the partnerships associated with a sustainable tourism industry, along with educating all of the stakeholders on the potential impacts of tourism in the region. It will allow for better planning and development of adventure tourism in the NDBR.

6.3.3 The basic destination requirements and sustainability

Keeping the themes and indicators of sustainability in sight, the stakeholders in the NDBR need to continue in the development of basic requirements for tourists to arrive and stay at the destination. In the simplest of forms, these include natural resources (i.e., a physical means of supporting the tourist); infrastructure, or the ‘built-in’ and ‘built-up’ structures; a transportation system (i.e., the actual modes of transportation); and finally the hospitality of the host community, an intangible but essential element (Nickerson & Kerr, 1998). Concerns regarding these basic requirements are reflected in the responses provided by the stakeholders, as described in Table 14. It is the planning, development, and maintenance of these elements that determine the success of a destination. Sustainability should be considered in the development of all such elements of the adventure tourism sector.

6.4 Concluding remarks

One villager described tourism development by simply saying, “How to organize and control tourism is complicated” (Respondent 39cmf, 18/09/04). This is reflected in

the numerous debates within the literature, the divergent views of the stakeholders considered in the study, and the lack of concrete examples of sustainable tourism destinations. Tourism is a complex system in which all of the elements are linked, thus requiring a holistic approach for development (Swarbrooke, 1999). As such, there needs to be recognition by the current players in the industry that approaching development in a random way with the development of rules, regulations, and programs that address one or two issues may not be enough to create a viable industry. A coordinated approach is necessary.

As the current stakeholders in the NDBR proceed with the development of tourism, recognition of the need for partnerships and mutually beneficial relationships is necessary. Tourism planning cannot be approached single-handedly. If adventure tourism is to develop at a rate that is sustainable as opposed to merely maintainable, coordination and cooperation is imperative. Each player has roles and responsibilities to assume, but each can also share their expertise to create a successful and viable industry.

In conclusion, I would like to provide a quote from Jawaharlal Nehru, who said, “We live in a wonderful world that is full of beauty, charm, and adventure. There is no end to the adventures that we can have if only we seek them with our eyes open.” Sustainable tourism is not something that lies only in the hands of the stakeholders, but also in the hands of the adventure-seekers and the tourists who continue to head out to the distant corners of the world for exploration, enjoyment, and learning. To those adventure seekers, I suggest adopting a tourist code of ethics, as is delineated in Appendix H. It is the tourist’s responsibility to travel in a spirit of humility with a genuine desire to learn more about the host country (Ecotourism Society, 2005). It is unlikely that sustainable

tourism will ever truly develop unless there is the pressure for it from the tourist (Swarbrooke, 1999), and thus it is every traveller's role to make responsible tourism decisions.

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<p>A typology of participation (IIED)</p> <ul style="list-style-type: none"> • Passive participation: people are told what is going to happen; their responses are not taken into account. The information belongs to external professionals. • Participation in information giving: Information is extracted from outsiders via questionnaire or other approaches. People have no influence over the proceedings. Results are not shared or checked for accuracy. • Participation by consultation: People are consulted by external agents, who identify problems and solutions. Decision-making is not shared. • Participation for material incentives: People participate by providing resources in return for cash or other material incentives. • Functional participation: People participate by forming groups to meet predetermined objectives related to a project. Involvement does not tend to occur in the early stages of project development, but rather after decisions have been made. Dependent on external initiators, but may become self-dependent. • Interactive participation: People participate in joint analysis which leads to action plans. Inter-disciplinary methods are used that seek multiple perspectives and use a structured learning process. The group takes control over local decisions, people have stake in maintaining structures or practices. • Self-mobilization: People participate by taking initiatives independent of external institutions.
<p>Gibson's principles for public participation</p>
<p>Open: Decisions must be open to public involvement and scrutiny. The public should be involved as early as possible in the process.</p>
<p>Participative: Facilitating public involvement and ensuring that new demands and procedures remain fair to all parties. The responsible authority should provide reasonable notice and opportunity to comment on any draft guidelines, codes or practice, agreements, arrangements, criteria or orders.</p>
<p>Fair: The process must be designed to ensure even handed treatment of all parties; i.e., equal opportunity to influence the decision before it is made, and equal access to compensation</p>

APPENDIX B

NANDA DEVI BIOSPHERE TIMELINE

By: Dhan Singh Rana, Sunil Kainthola, & Partibha S. Nainthani

<i>Since time immemorial, Nanda Devi presides over the Uttarakhand Himalaya as its patron goddess and highest peak. The Nanda Devi Raj Jat pilgrimage is conducted in her honour every 12 years. Nanda Devi remains off limits to travelers and climbers. The local Bhotiya inhabitants graze their goats and sheep throughout the region, while carrying on centuries-old trade relations with Tibet.</i>	
1883	First attempts to enter the Rishi Ganga valley at the base of the Nanda Devi peaks is turned back by the precipitous gorge at the basin's entrance.
1934	British Mountaineers Eric Shipton and H.W. Tilman discover a passage into the "inner sanctuary" of the Rishi basin.
1936	Tilman returns with colleague N.E. Odell to scale Nanda Devi for the first time.
1939	The entire Rishi basin is declared a game sanctuary.
1962	India-China War closes the border indefinitely, affecting trade and migration routes of the Bhotiya peoples. With increased road access and lands near the border appropriated by the military, locals turn to trekking and tourism for their livelihood.
1965-1968	Secret Indo-American mountaineering expeditions launched to plant a nuclear-powered listening device on Nanda Devi summit. First device lost.
1974	Protests against commercial clear felling in nearby Reni village launches the famous Chipko (hug the trees) movement. Fifty-year old Gaura Devi emerges as a feminist heroine for leading village women to defend their forest. Subsequently, women participate in overwhelming numbers in Chipko actions across Uttarakhand.
	In the same year, Nanda Devi is opened to Western mountaineering, providing a short boom to the local economy. Nanda Devi becomes second most popular destination in the Himalaya next to Everest. Lata village at the western entrance becomes a major departure point for expeditions.
1976	Indo-American expedition led by Willi Unsoeld meets with tragedy as 22-year-old daughter, Nanda Devi, succumbs to gastrointestinal illness.
1977	First reports of ecological damage due to tourist trade prompt concern in environmental circles.
1982	Upon the recommendation of scientists and wildlife experts, Nanda Devi Sanctuary is upgraded to the level of a National Park. All treks, expeditions, and grazing are banned in the core area.
1988	Nanda Devi National Park forms the core area of the newly designated Nanda Devi Biosphere Reserve. Man and Biosphere (MAB) programme launched to mitigate losses of surrounding communities owing to the closure of the core zone.
1991	Gaura Devi dies penniless after a lifetime of service to her community. Despite misfortune towards the end of her life, she becomes enshrined in the modern mythology of Uttarakhand.
1992	NDBR is declared a World Heritage Site by UNESCO.
1993	An army-led team removes 1,000 tonnes of rubbish from the reserve left

	behind by previous mountaineering expeditions.
1998	Growing resentment over forest restrictions leads to a massive entry into the core area in protest against the government's indifference. This <i>Jhapto Cheeno</i> (swoop and grab) movement emerges from same villages that gave birth to the Chipko movement
2000	NDBR is included in the new state of Uttaranchal that places hope in ecotourism's potential as an economic pillar.
2001	<i>May</i> . State government allows the Indian Mountaineering Foundation to survey NDBR's potential for high-end tourism. Long suffering local villages force the government to backtrack on its original plan and consider community rights first.
	<i>October</i> . The Lata Village Council in concert with its citizens, village leadership, and allied grassroots organizations convene a workshop and issue a declaration for community-based ecotourism and biocultural persity conservation.
2002	New state government elected in Uttaranchal. Local MLA and tourism minister defeated on account of dissidence in his own party on the Nanda Devi issue.
2003	New pro-people NDBR director, in consultation with community groups and activists, sets a new policy allowing regulated tourism with guaranteed community participation.

APPENDIX C

SEMI-STRUCTURED INTERVIEW FORMAT

The first series of questions will explore the participant's role in adventure tourism.

1. What is your role in adventure tourism in the area?
2. Describe what you do.
3. How long have you been involved in this role?
4. Do you think your role will change with time? Why or why not?
5. How would you define adventure tourism?

The next set of questions will deal with adventure tourism and land use in the area.

6. Where do the adventure tourism activities you are involved with take place?
7. How are decisions made regarding the location of adventure tourism activities?
8. What other sorts of land uses take place in these areas?
9. How do the adventure tourism activities interact with other land uses?

The next questions will explore the roles of the public and private sectors in adventure tourism.

10. What role does the community (i.e., individuals or businesses) play in adventure tourism?
11. What role does the local government play?
12. What role does the state government play?

13. What role do you think the community should play in adventure tourism development?

14. What role do you think the government (local and state) should play?

The final question relates with the future of adventure tourism in the area.

15. What do you think the future of adventure tourism will be in the area? In the next 10 years? Beyond the next 10 years?

For members of the interested public, questions 1-5 will not be applicable. Questions for local people will include:

16. How does adventure tourism affect you?

17. How does adventure tourism affect your community?

18. How do you think the local community can best be involved in adventure tourism planning?

If more detailed information is required, the following can be used as probes:

- If the response fails to answer the question or it answers a different question, the question will be repeated.
- If the response is unclear or ambiguous, the probe will be “How do you mean (that)?”
- If the response is not detailed or specific enough, the probe will be “Could you tell me more about (that)?”
- When a perfectly appropriate response is given, but there is the possibility that there is additional information to the question, the probe will be “Is there anything else?”

APPENDIX D

LIST OF SECONDARY DATA SOURCES

Government policies:

Center for Ecotourism .2003. *Ecotourism Policy for the state of Uttarakhand*. Forest Department, Government of Uttarakhand: Dehra Dun.

Environment Protection Act. 1986. *Environment protection act*. Government of India: Delhi.

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Websites:

www.garhwaltourism.com/valley

www.nandadevi.org

<http://www.thebharat.com/maps/uttarakhand/>

<http://www.uttarakhandtourism.gov.in/Policy1>

<http://www.adventuretrekking.org/>

Maps:

One topographic map of Swiss origin, and a ridge map from the former government of Uttar Pradesh were located. These were supplemented with maps created by respondents in mapping exercises, as well as maps provided in other government documents.

Books:

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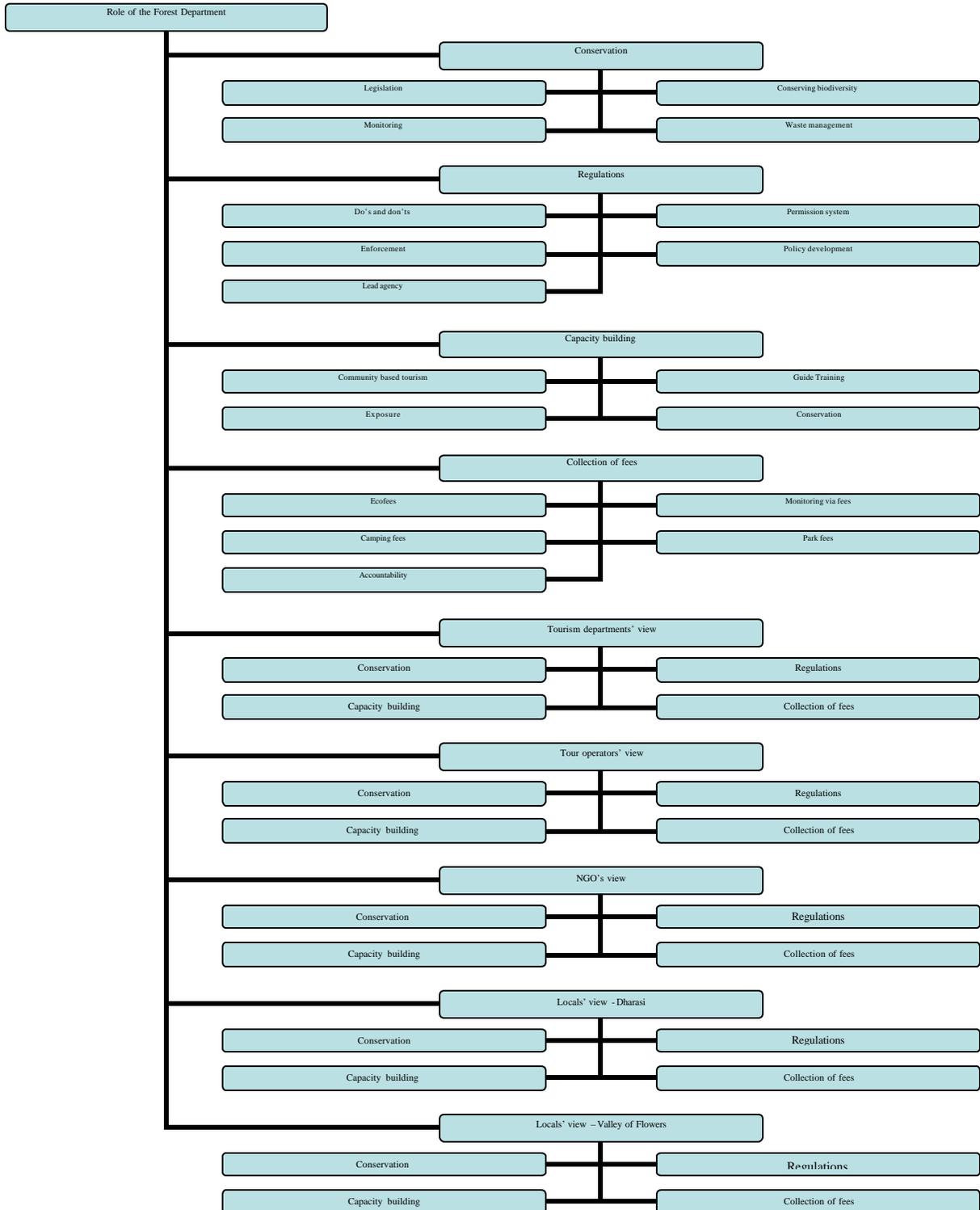
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APPENDIX E

EXAMPLE OF A NODE TREE



APPENDIX F

SOME RULES FOR REGULATED TOURISM IN THE NANDA DEVI BIOSPHERE RESERVE

Do's:

1. The visiting team will have to hire guides/porters from the local villages through the registered local tour operators. In no circumstances hiring of guides or porters from any outside agency will be allowed.
2. The will have to contact the Divisional Forest Officer, NDNP for necessary permission and the local tour operator for the list of guides/porters and about the payment f guides/porters fees before the starting of the trek.
3. The teams will have to avail to all infrastructure facilities (boarding, lodging, and transport) available with the local people throughout their expedition.
4. The teams should abstain from using fuel wood and use only LPG, kerosene, or gas cylinders for their cooking, heating, and lighting purposes, including that by staff or porter. They should zealously avoid any environmental damage during their treks. Follow safety rules when carrying, storing, and using kerosene and gas.
5. All expeditions shall ensure that the garbage that they generate is removed by them and that they shall undertake to abide by such terms and conditions as may be stipulated by the Forest Department for this purpose.
6. All visitors should carry a bag for collection of garbage and other litter. Pack out all non-biodegradable rubbish, should not drop cigarette butts or candy wrappers.
7. All the visitors should bring adequate warm dry clothes and see that staff and porters have proper gear.
8. All the visitors should be respectful towards others' peace and should speak quietly on the trail and at overnight stops.
9. All the visitors should pay fair prices for lodging, food, and services. Buying local products benefits the local economy, but buying antiques and artefacts robs Uttaranchal of its culture. So do not buy antiques from any source.
10. All the visitors should always ask before photographing people and try to establish friendly contact before shooting. No money should be paid.
11. All the visitors should use toilets wherever available. Where not, should stay 30 meters from streams and water sources.
12. All the visitors should wear good hiking shoes or boots as trails could be slippery and rocky. Don't go off the trail, it leads to soil erosion. Any breach of this rule by the porters will be the responsibility of the registered tour operator.
13. All the visitors should get their entire baggage checked by the Forest Department whenever demanded. They should deposit a list of all non-biodegradable items and other items with the beat officer and should again be rechecked at the end of the trek.

14. All visitors will have to follow only the approved route. No deviance will be allowed. On the return the party will have to give a small report about their experience, giving the details about the halting places to the local Divisional Forest Officer or the tour operator.
15. Use established campsites and kitchen sites. Avoid trenching around tents.
16. Avoid fuel-consumptive menu items e.g., baked foods and large menu selections.
17. Repackage food into reusable plastic containers to reduce waste.
18. Reduce waste by de- and re- packaging.
19. Teach all staff about personal hygiene, sanitary kitchen and camp routines.
20. Dispose of washing and bathing water well away from streams and use biodegradable soap.
21. All the visitors will carry out trekking/camping at their own risk. The Forest Department will not be responsible for any kind of accident or mishap.
22. Abide by all the provisions of the Wildlife Protection Act (1972) and the Indian Forest Act (1927).

Don'ts

1. Don't go for mountaineering, climbing, swimming, or any type of adventure activity without proper permission.
2. Don't kindle fire or throw lighted cigarettes/bidi butts or matchsticks inside the reserve.
3. Don't destroy, trample, collect, or remove any plant and animal specimen whether alive or dead or any geological specimen.
4. Don't carry and introduce any alien seeds or propagation material of any plant species and don't introduce any exotic animals or pets.
5. Don't carry instruments, implements, tools, arms, firearms, or chemicals harmful to wildlife and vegetation.
6. Don't shout, hoot, play audio or video tapes, or the radio, inside the forest areas.
7. Don't try to feed any wild animal.
8. Don't damage, break, or distort the facilities provided by the park authorities.
9. Don't deface, put sign boards, write or paint on the tree trunks, rocks, or any infrastructure (camping huts, boundary walls, and boundary pillars).
10. In case of fatigue and ailment of any member, do not venture further and seek the help of forest staff and/or local people.
11. Do not burn wood for cooking and warming.
12. Do not leave plastic mineral water bottles in the mountains.

APPENDIX G

THE NANDA DEVI BIODIVERSITY CONSERVATION AND ECO-TOURISM DECLARATION

**Gram Sabha Lata, Chamoli, Uttaranchal
October 14, 2001**

Today on the 14th of October, 2001 in the courtyard of the temple of our revered Nanda Devi, we the people's representatives, social workers and citizens of the Niti valley, after profound deliberations on biodiversity conservation and tourism, while confirming our commitment to community based management processes dedicate ourselves to the following -

1. That we, in accordance with the resolutions adopted by the World Tourism Organisation's Manila Declaration 1997 on the Social Impact of Tourism will lay the foundation for community based tourism development in our region
2. That in our region we will develop a tourism industry free from monopolies and will ensure equity in the tourism business
3. With the cessation of all forms of exploitation like the exploitation of porters and child labour in the tourism industry, we will ensure a positive impact of tourism on the biodiversity of our region and the enhancement of the quality of life of the local community
4. That in any tourism related enterprise we will give preference to our unemployed youth and under privileged families, we will also ensure equal opportunities for disabled persons with special provisions to avail such opportunities
5. That we will ensure the involvement and consent of the women of our region at all levels of decision making while developing and implementing conservation and tourism plans
6. While developing appropriate institutions for the management of community based conservation and eco tourism in our area we will ensure that tourism will have no negative impact on the bio diversity and culture of our region, and that any anti social or anti national activities will have no scope to operate in our region
7. We will regulate and ensure quality services and safety for tourists and by developing our own marketing network will eliminate the middlemen and endeavour to reduce the travel costs of the tourist
8. While developing the tourism infrastructure in our region we will take care of the special needs of senior citizens and disabled persons
9. As proud citizens of the land of the Chipko movement we in the name of Gaura Devi will establish a centre for socio-culture and biodiversity, for the conservation and propagation of our unique culture
10. We will ensure the exchange and sharing of experiences with communities of other regions to develop eco tourism in accordance with the Manila Declaration of 1997 in those regions

11. Acknowledging the spirit of Agenda 21 of the Earth Summit, Rio 1992, the Manila Declaration on the Social Impact of Tourism 1997 and the International Year of the Mountains and Eco tourism, 2002, we will strive for bio diversity conservation and an equitable economic development within the framework of the Constitution of the Republic of India
12. Today on October 14, 2001, in front of our revered Nanda Devi, and drawing inspiration from Chipko's radiant history we dedicate ourselves to the transformation of our region into a global centre for peace, prosperity and biodiversity conservation.

APPENDIX H

CODE OF ETHICS FOR TOURISTS

1. Travel in a spirit of humility and with a genuine desire to learn more about the people of your host country. Be sensitively aware of the feelings of other people, thus preventing what might be offensive behavior on your part. This applies very much to photography.
2. Cultivate the habit of listening and observing, rather than merely hearing and seeing.
3. Realize that often the people in the country you visit have time concepts and thought patterns different from your own. This does not make them inferior, only different.
4. Instead of looking for the "beach paradise", discover the enrichment of seeing a different way of life, through other eyes.
5. Acquaint yourself with local customs. What is courteous in one country may be quite the reverse in another -- people will be happy to help you.
6. Instead of the Western practice of "knowing all the answers", cultivate the habit of asking questions.
7. Remember that you are only one of thousands of tourists visiting this country and do not expect special privileges.
8. If you really want your experience to be a "home away from home", it is foolish to waste money on traveling.
9. When you are shopping, remember that the "bargain" you obtained was possible only because of the low wages paid to the maker.
10. Do not make promises to people in your host country unless you can carry them through.
11. Spend time reflecting on your daily experience in an attempt to deepen your understanding. It has been said that "what enriches you may rob and violate others."

Source: The Ecotourism Society. 2005. Code of ethics for tourists. www.ecotourism.org