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TOWARDS AN INTEGRATED SYSTEMS APPROACH TO SUSTAINABLE TOURISM MANAGEMENT IN PROTECTED AREAS

A thesis submitted by

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Certification of Dissertation

I certify that the ideas, results, analyses, and conclusions reported in this dissertation are entirely my own effort, except where otherwise acknowledged. I also certify that the work is original and has not been previously submitted for any other award, except where due reference is made

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Abstract

Sustainable tourism has been widely viewed as an effective way of addressing the socio-economic and environmental issues associated with protected areas, particularly alpine protected areas which are popular destinations providing opportunities for adventure tourism with close-to-nature experiences. They also serve as tourist attractions and are a source of livelihoods for local communities. Nevertheless, the impact of tourism is controversial and its sustainability is not always evident both in terms of socio-economic development and nature conservation.

In view of the negative social-ecological consequences and economic implications of tourism there is growing recognition for sustainable approaches to tourism management in protected areas. Tourism has been acknowledged as a tool for conservation and for creating local livelihoods. However, the complex nature of alpine and marginalized protected areas such as Central Karakoram National Park (CKNP), conflicting interests of multiple stakeholder groups and inadequate opportunities for networking have ostensibly inhibited tourism in achieving the social, environmental and economic objectives of sustainability. Therefore, the research viewed the protected area system from the prism of interlinked complexity, stakeholder, sustainability and collaboration theories that integrate the concepts of communities systems (social, economic and environmental) and interdependencies in their theoretical paradigms. Keeping in perspective the complex systems approach, the purpose of this research was to identify key governance factors emerging from the perceptions of multiple stakeholder groups that could influence the development of an integrated systems approach to tourism management in protected areas.

To achieve the purpose of the research four research questions were developed and investigated through a mixed method approach. The results revealed that despite the rhetoric and interest, sustainable tourism was not the underlying approach taken by protected area authorities and other stakeholder groups in the planning and management of tourism in the CKNP. This was evidenced by a centralized and ineffective governance structure, a culture of withholding and concealing information, and exclusion of key stakeholder groups in the decision-making process.

The results of the research revealed that the level of stakeholders' capacity and opportunities for local communities in tourism development were low. Community

members had restricted access to decision-making, lacked knowledge and skills and exhibited a marginal sense of ownership with regard to protected area tourism.

The findings disclosed that the main factors derived from stakeholders' perceptions that underpin the development of sustainable tourism in CKNP included: evolution of a participatory governance structure, a participatory strategic planning process and an integrated and inclusive policy approach to sustainable tourism development in the protected area.

In view of the factors identified a guideline was proposed as a possible option for driving the process of sustainable tourism that incorporated the principles of participatory governance and strategic planning.

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List of Abbreviations

AKRSP	Aga Khan Rural Support Program
ANOVA	One-way analysis of variance
CESVI	Cooperazione e Sviluppo
CKNP	Central Karakoram National Park
CKPA	Central Karakoram Protected Area
CBD	Convention on Biodiversity
CC-ST	Community capacity for sustainable tourism Scale
ECOSOC	Economic and Social Council
EFA	Exploratory factor analysis
EU	European Union
FAO	Food and Agriculture Organization
FWD-GB	Forest and Wildlife Department Gilgit-Baltistan
GOP	Government of Pakistan
HBP	Hagler Bailly Pakistan
HEP	Human exemptionalism paradigm
HKKH	Hindu Kush-Karakoram-Himalaya
ICIMOD	International Centre for Integrated Mountain Development
IGBS	Institute of Gilgit-Baltistan Studies
ITF-STD	International Task Force on Sustainable Tourism Development
IUCN	International Union for Conservation of Nature
KMO	Kaiser-Meyer-Olkin measure
KNP	Khunjerab National Park
LC	Local Communities
NAFWD	Northern Areas Forest and Wildlife Department

NEP	New Ecological Paradigm Scale
NGOs	Non-governmental Organizations
NOC	No objection certificate
OECD	Organization for Economic Co-operation and Development
PA	Protected Area Authorities
PAC-ST	Protected area authorities capacity for sustainable tourism scale
SATC	South Australian Tourism Commission
SEED	Social Environmental Economic Development Project
SUS-TAS	Sustainable Tourism Attitude Scale
TE	Tourism Enterprises
TR	Tourists
UN	United Nations
UNEP	United Nations Environment Program
WCED	World Commission on the Environment and Development
WTO	World Tourism Organization
WWF	World Wide Fund for Nature Pakistan

CHAPTER ONE

Introduction

1.1 Introduction

Tourism research in protected areas is increasingly recognizing tourism as a tool for conservation and social development (Bushell & Eagles, 2007; Butts & Sukhdeo-Singh, 2010; Kidder & Spears, 2011, Sofield & McTaggart, 2005). Deriving positive social and environmental benefits from tourism has given rise to the concept of sustainable tourism. In other words, the historical model of protected areas has shifted from an exclusionist approach with disregard for residents or surrounding human populations (Adams & Hutton, 2007; Uddhammar, 2006) to a model that profoundly and intricately links protected areas and people (Borrini-Feyerabend et al., 2004; Chape et al., 2008; Clark et al., 2007; Dearden et al., 2005; Francis, 2007; Worboys et al., 2005).

There is, therefore, a need to explore how the intricate interactions between humans and nature influence the social, economic and environmental dimensions of sustainability, especially in protected area tourism where the relationship between tourism, livelihoods and conservation is complex and dynamic. Such a stipulation calls for policy and management approaches that are able to work with conditions of uncertainty, dynamism, and complexity (Plummer & Armitage, 2007).

This thesis is exploratory and reports on an empirical investigation and identification of factors that can influence the development of an integrated sustainable tourism management systems approach in the Central Karakorum National Park (CKNP) in Pakistan. CKNP ideally suits the purpose of this research. It presents a unique fragile alpine environment with high tourism potential and a marginalized indigenous community. Both tourism and the local communities rely on its environment as their primary resource, thereby posing threats to its ecological integrity.

In view of this conflicting yet interconnected tourism, livelihood and conservation nexus, the research considers protected area tourism as a complex and dynamic social-ecological system (Ban, 2013; Imran et al., 2012; Strickland-Munro

et al., 2010). The research bases its assumptions on four contemporary mainstream theories, which are integrated and viewed holistically rather than in isolation to answer the questions the present the research posits. The complexity theory provides a broader context for integrating the other three, the stakeholder, collaboration and sustainability theories, to study the protected area as a complex social-ecological system.

According to complexity theory, the properties of a system are comprised of sub-systems that interact within the larger system. These sub-systems are not only complex and dynamic but are also adaptive and display unpredictable and emergent properties. In a social-ecological system human beings are a symbiotic part of the complex web of their social and biological surroundings (Geyer, 2003). Therefore, collective human interaction with their environment produces complex interpretive outcomes. Dynamics in complex systems emerge when different stakeholder groups, institutions, states and non-state actors interact with each other (Geyer, 2003).

In the mid-1980s, Richard Edward Freeman (Freeman, 1984) developed the stakeholders concept with a view to recognising the need for a more pro-active role by states, companies and communities in a development process aimed at balancing economic growth with environmental sustainability and social cohesion (Katsoulakos & Katsoulacos, 2007). The idea of the stakeholder approach to strategic management, suggests that managers must formulate and implement processes which satisfy all groups who have a stake in the business. The main task in this process is to manage and integrate the relationships and interests of all stakeholders that guarantee the long-term success of the organizations. Freeman (2004, p. 58) defines stakeholders as "those groups who are vital to the survival and success of the corporation".

Stakeholder theory begins with the assumption that values and relationships with stakeholders are a critical part of success. It asks managers to articulate the shared sense of the value they create, and what brings its core stakeholders together (Freeman, 2004). Stakeholder theory claims that whatever the ultimate aim of the corporation itself, managers and entrepreneurs must take into account the legitimate interests of those groups and individuals who can affect (or be affected by) their activities (Donaldson & Preston, 1995; Freeman, 1994).

Stakeholder' theory fits well within the sustainable tourism context as it presents a process that involves multiple stakeholders and interests. The stakeholder theory posits that various groups can and should have a direct influence on managerial decision-making (Jones, 1995). Therefore decision-making and development processes require multi-stakeholder involvement at all levels of planning and policy-making that determines the amount and kind of tourism that a community wants (Choi & Sirakaya, 2006). Various tourism stakeholders are classified according to their functions. Within the stakeholder theory's framework, these functions are consistent with the roles of the stakeholder, and each role is crucial to the performance of the entire tourism system (Kerimoglu & Ciraci, 2008)

Collaboration theory provides a flexible and dynamic process that allows multiple stakeholders to jointly address problems in a complex domain (Gray, 1989). In collaboration theory, stakeholders and organizations constantly interact in evolving and adaptive ways to new policies and developments. These complex interactions are susceptible to unpredictable changes and need to adjust to new opportunities and constraints. The emergent properties of these interactions can, therefore, promote learning, diversity and adaptation at different levels (Geyer, 2003). Recognition of the importance of stakeholders in a protected area management system makes stakeholders involvement an increasingly important sustainability principle (Jamal & Stronza, 2009).

This research, keeps in perspective the sustainability, collaboration and stakeholder theories as integral parts of the complexity theory. It, therefore, attempts to understand the perceptions of multiple stakeholders about the environment and sustainable tourism in CKNP. It further explores the barriers and opportunities that can influence the achievement of collaborative sustainable tourism outcomes in the protected area. The research contributes to theory by testing and demonstrating the validity and practicability of applying non-linear systems theory (Ingraham, 1992) in the process of developing an integrated systems approach to sustainable tourism in protected areas.

The purpose of this chapter is to present an overall synopsis of the research, outline the research structure and introduce the approaching chapters. This introductory chapter, therefore, sets the context for the remainder of the thesis. It begins with a discussion on the background to the research in Section 1.2. Sections

1.3 and 1.4 underline the research problem and delineate the research questions. The research purpose is then discussed in Section 1.5. The significance of the study is explained in Section 1.6. Section 1.7 discusses the study area, providing a brief description and overview of CKNP's location, its ecological and social aspects, and the state of tourism in the region. The research methodology is described next in Section 1.8 followed by scope and limitations presented in Section 1.9. Finally, the thesis structure is reviewed, providing brief descriptions of the six forthcoming chapters of this thesis.

1.2 Background to the research

The concept of sustainable tourism emerged within the tourism literature during the 1980s (Luck, 2002; Simmons, 1999). The emergence of this concept coincided with the sustainable development paradigm introduced in the World Commission on the Environment and Development report, *Our Common Future* (WCED, 1987). Subsequently, it has emerged as one of the most rapidly growing fields of enquiry (Cawley & Gillmor, 2008; Hunt & Stronza, 2009). Considering its multidimensional and complex nature (Cawley & Gillmor, 2008), it has been characterized by continued debates over the years on its definition and a lack of consensus still remains over its theoretical foundations (Hardy et al., 2002; McDonald, 2009; Sharply, 2010). It is considered an adaptable concept, fitting different perceptions and with different meanings to different people (Farsari et al., 2011). Therefore, complexity theory is being increasingly used to address and study the non-linearity inherent in tourism systems (Farsari et al., 2011; McDonald, 2009). Complexity in sustainable tourism becomes more apparent when it is viewed as a social-ecological system. Therefore, its management is viewed as a holistic approach integrating social, environmental and economic dimensions (Farsari et al., 2011).

McDonald (2009) argues that tourism research has generally taken a reductionist approach which does not recognize its inherent complexity. A reductionist worldview separates humans from nature. Such a view also separates facts from values associated with nature (Carley & Christy, 2000; McDonald, 2009). As a result, interpretations of sustainable tourism development are highly focused on one particular aspect and are sector specific, thereby limiting understanding of the complex interrelationships between tourism components and other components

within a system (McDonald, 2009). In contrast, a non-linear view emphasizes the inherent complexity, unpredictability and dynamism within systems (Adams 2003; Chapin et al., 2009; Folke et al., 2009). This complexity in tourism stems from inter-organizational and actors' relations.

The lack of understanding about the interrelationships between stakeholder groups with varied social, economic and environmental interests is reflected in the debates that continue within the tourism literature (Macbeth, 2005; Selman, 2008). The study of tourism is, even now, regarded as a relatively new discipline still developing in theoretical frameworks (Jennings, 2010; Sharply, 2010). McDonald (2009, p. 456) argues that, "a more holistic approach to understanding sustainable tourism development can come from interdisciplinary learning" and suggests complexity theory as an alternative paradigm for sustainable tourism development.

Considering the inherent complexity of tourism dynamics in protected areas, and the limited understanding of the interrelationships among different stakeholders, this research explores complexity theory as an alternative paradigm to view and understand the concept of sustainable tourism in protected areas. Hence, shifting from the reductionist approach towards a more holistic approach, it examines the complex interrelationships between multiple stakeholders with diverse economic, political, environmental and social interests linked to CKNP. Moreover, it identifies common and conflicting social, economic and environmental values and perceptions of these stakeholders associated with tourism in the protected area context. Founded on stakeholders' perceptions, the aim is to provide a basis for a more informed and all-encompassing sustainable tourism development process in protected areas.

Complexity theory is a relatively new and emerging phenomenon which, due to its interdisciplinary nature, is increasingly being adopted across disciplines such as ecology, social sciences, economics, business and corporate sectors to shape policy and planning decision making processes (Dostal et al., 2005; Mason, 2007; McDonald, 2009; Savitz & Weber, 2006; Schianetz & Kavanagh, 2008; Strickland-Munro et al., 2010;). It is a holistic concept which views humans as part of nature and not as separate entities. The complex and multi-dimensional nature of protected areas and sustainable development also demands a systems approach in addressing this complexity (Nguyen et al., 2011).

The awareness of complex interactions and interdependencies between resources and stakeholders and their underlying values and perceptions can assist in identifying issues that can influence sustainable tourism development outcomes (McDonald, 2009; Strickland-Munro et al., 2010). This research, therefore, adopts the concepts emerging from a complex systems approach and attempts to answer the question of why the implementation of sustainable tourism in protected areas can be a challenge for the policy makers and practitioners. Research also suggests that linking conservation planning to social–ecological systems can lead to a more thorough understanding of human–environment interactions and our understanding of the linkages between social and ecological influences on the environment (Ban et al., 2013). Applying such a framework can assist in identifying socially and ecologically oriented conservation actions that benefit the environment and local communities (Ban et al., 2013).

Cottrell et al. (2007) maintain that sustainable development outcomes are difficult to obtain without consideration of some aspects of the economic, social/institutional, and environmental dimensions of sustainability. Within these three dimensions, the research determines the level of interest, understanding and capacity of different stakeholders to accommodate sustainable tourism management practices.

1.3 Research problem

The challenge for tourism destinations world over is the development and management of sustainable tourism that provides benefits to both visitors and host communities and protects and enhances natural and cultural attributes (Commonwealth of Australia, 2004). There are a number of issues that have been identified in research that influence the achievement of sustainable tourism at the destination level (SATC, 2002; Zapata et al., 2011). In particular, high altitude environments such as mountains with minimal past human interaction are one of the six "fragile ecosystems" identified by *Agenda 21* that require specific action by governments and international donors (UNEP, 2002). In fragile environments, such as protected areas in alpine regions, improved infrastructure and increasing level of mass tourism has resulted in unsustainable tourism, with little regard for either the environment or for the residents (ECOSOC, 1999). There is a growing realization of the negative impacts of tourism on the environment and consequently on the

livelihoods of communities living in these fragile areas. Realizing the negative environmental and social consequences of mass tourism, research studies widely recognize and emphasize the need to identify more mutually beneficial approaches to tourism development (UNEP, 2002).

Furthermore, tourism is considered inherently non-linear, complex and dynamic (Dredge, 2006a; McKercher, 1999; Ren et al., 2010). It includes diverse yet interactive social, economic and environmental components, and involves diverse stakeholders with differing interests. These interrelationships between stakeholders, protected areas and tourism indicate the need for a systems approach to manage the social, economic and ecological resources. Recent research also suggests that to achieve sustainability tourism needs to adopt a systems approach that focuses on the entire protected area system and its constituent social, economic, and environmental dimensions and encourages a high degree of stakeholder integration (Nguyen, et al., 2011; Farrell & Twining-Ward, 2005).

ECOSOC (2002) states that solutions to adverse tourism impacts are to be found in the shared interest of local communities, tourism businesses, and tourism consumers to maintain the natural wealth and cultural heritage of the tourist destination. There are now increasing calls from researchers to apply collaborative approaches to managing tourism in protected areas because of its multi-dimensional and multi-stakeholder perspectives (Bushell & Eagles, 2007; Cawley & Gillmor, 2008; Jenkins & Oliver, 2001; Saarinen, 2006; Tsaur et al., 2006).

Over the past two decades, tourism scholars have made significant contributions in sustainable tourism particularly in the areas of participation and stakeholder collaboration (Butler 1999; Eagles, 2009; Hunter, 1997; Jamal & Getz, 1995, Jamal & Stronza, 2009; Ladkin, 2000; Swarbrooke, 1999). Recently the concept of tourism as a complex adaptive system has also been vastly debated (Farrell & Twining-Ward, 2004; Larson & Poudyal, 2012; Plummer & Fennell, 2009; Roux & Foxcroft, 2011; Strickland-Munro, 2010). However, little academic attention has been paid to research that explores the implications of tourism as a complex system from the perspectives of multiple stakeholders in a real context and context. This research is designed to bridge the existing gap in knowledge by obtaining additional insights, perhaps overlooked in previous studies, on the factors

that influence the adoption of an integrated systems approach to sustainable tourism in alpine protected areas in general and CKNP in particular.

1.4 Research questions

A major challenge for "sustainable tourism" is decentralization and creation of tangible and working local partnerships. In many developing countries, particularly Pakistan, issues related to tourism and their consequences on the environment and local communities have not been investigated and studied fully. Consequently, this research attempts to answer the following research problem considering the perceptions of the stakeholder groups involved in tourism in CKNP:

Do factors such as interest in the environment, understanding of sustainable tourism, and capacity of stakeholders affect their participation behavioural intent to participate in a collaborative sustainable tourism management process?

Based on the main research problem, there are four sub-questions that need to be addressed. They are:

1. What is the level of interest of the key stakeholders in the environment? Is the level of interest among different stakeholders significantly different?
2. What is the level of understanding of the stakeholders about sustainable tourism? Is the level of understanding among different stakeholders significantly different?
3. What are the stakeholders' perceptions about their capacity to engage in sustainable tourism?
4. What are the barriers and opportunities for sustainable tourism development in the protected area?

1.5 Research objectives

The primary purpose of this research is to determine the key factors-keeping in view the perceptions of stakeholder groups-that influence the adoption of a collaborative sustainable tourism management system in the protected area. To achieve this purpose, the research assesses the interest, understanding and capacity of the stakeholders and identifies the barriers and opportunities for a more informed and

collaborative sustainable tourism process. The study builds on previous research findings which established that attributes such as interest (attitudes), understanding (perceptions) and capacity (skills and opportunities) of the stakeholders influence conservation outcomes need to be further studied and addressed to work towards sustainable tourism development in protected areas (Cawley & Gillmor, 2008; Erkus & Erydin, 2010; Hunt & Stronza, 2009; Jamal & Stronza, 2009; McDonald, 2009; Puhakka, 2008; Stronza & Gordillo, 2008; Stronza, 2009).

The research explores the views of four stakeholder groups to support the proposition that achieving collaborative sustainable tourism management objectives would be challenging without the interest, understanding and capacity of all the stakeholders. The stakeholder groups for this study are identified as local communities, tourism enterprises, protected area authorities and tourists. On the basis of the stakeholders' interest, understanding and capacity, it identifies factors needed to establish a collaborative sustainable tourism management system.

1.6 Significance of the research

This study investigates and identifies the issues related to evolving a sustainable tourism management system in high altitude protected areas in developing countries, especially in Pakistan, from the stakeholder groups' perspectives. It thereby provides a basis for understanding the key factors and requirements that can influence the effectiveness of such a process.

Achieving the goal of sustainable tourism in developing countries has not always been successful (Sharply, 2010; Zapata et al., 2011). The process is very complex and its effectiveness and implementation are dependent on a number of issues such as political, economic, social/cultural, and ecological (Hardy & Beeton, 2001; Mai, 2010; Puczkó & Rátz, 2000). These issues are highly influential in determining the success or failure of sustainable tourism. Although CKNP is eager to adopt an integrated approach to protected area management, the process of adoption has been slow and impeded by numerous obstacles. There is the likelihood that these issues could potentially affect the success of sustainable tourism processes. Identifying and understanding the views of stakeholders could facilitate in determining the barriers and opportunities to a collaborative approach to sustainable tourism management in CKNP.

The research makes significant contribution to the field of protected area tourism. It provides an unconventional planning and governance framework for tourism in protected areas. The framework addresses calls in the literature for revised approaches based on adaptive management and systems thinking (Elbakidze, et al., 2010; Plummer & Fennell, 2009; Roux & Foxcroft, 2011; Strickland-Munro, 2010). It demonstrates the significance of viewing protected area tourism as a social-ecological system. Within such a system it explores how multiple stakeholders influence the development of a collaborative sustainable tourism process that integrates social, environmental and economic dimensions of sustainability.

Moreover, many studies have mainly focused on tourism related impacts (Andriotis & Vaughan, 2003; Dyer et al., 2007; Gursoy et al., 2002; Ryan et al., 1998; Sharply, 2000). There is dearth of empirical research linking tourism, local livelihoods and conservation in the study area. This research attempts to understand how tourism can be used for local livelihood development and the conservation of CKNP.

The researcher selected CKNP in order to develop a greater understanding of the complex interrelationships among different tourism stakeholders and how these influence the development of a collaborative sustainable tourism process. In addition, there was an interest of the government and other key stakeholders to develop an integrated management model for CKNP. Such an interest was viewed as an opportunity for the researcher to provide the stakeholders with feedback and guidelines on policy and management options.

1.7 The study area

Located in the Karakoram Mountain Range, the CKNP was officially established and notified as a national park in 1993 in view of its awe-inspiring natural beauty, spectacular landscape, unique biodiversity and rich cultural heritage. It is the largest protected area in Pakistan, covering over 10,000 km² (IUCN, 1999). The CKNP falls into the administrative districts of Gilgit, Skardu and Ghanche in the Northern Areas recently re-named “Gilgit-Baltistan”. Approximately 230 villages, 97,608 people and 13,159 households are located in areas adjacent to CKNP (ICIMOD, 2011)

CKNP includes the world's greatest concentration of high peaks and the world's largest glaciers (formed by Baltoro, Hispar-Biafo and Siachen) outside the Polar Regions (Hagler Bailly Pakistan, 2010). It thus forms the largest source of fresh water for Pakistan. The area is characterized by extremes of altitudes that range from 2,000 m to over 8,600 m, including K2, the second highest peak in the world. CKNP has significant biodiversity value as it is home to a number of rare and endangered flora and fauna. Some of the plant species include blue pine, chilghosa pine, birch, willow, juniper, and alpine pastures (Hussain et al., 2010; WWF-Pakistan, 2009). Flagship animal species are the Snow Leopard, Marco Polo Sheep, Himalayan Ibex, and Musk Deer. Besides biological and geological values, CKNP also has remarkable archaeological and cultural values. Due to its geographic position and rich cultural and ecological heritage, CKNP receives thousands of mountaineers and trekkers each year.

It has, as a result, drawn international attention, and a consortium of non-governmental international organizations, including Aga Khan Rural Support Program (AKRSP), World Wide Fund for Nature Pakistan (WWF), International Union for the Conservation of Nature (IUCN), International Center for Integrated Mountain Development (ICIMOD), Ev-K2-CNR, and Cooperazione e Sviluppo (CESVI), are supporting CKNP to adopt an integrated protected area management model. These organizations are working with the local government to develop a framework for the management of the park based on the lessons learned from the Khunjerab National Park (KNP) in Gilgit-Baltistan and the Sagarmatha National Park in Nepal.

Its first management plan was developed by the IUCN in 1999 (IUCN, 1999) and its boundary was defined to exclude all villages. However, the management plan was not operationalized and CKNP's status and demarcation of boundaries is still in dispute. Another management plan was developed in 2005 that proposed to include the buffer zone communities in the management of the park by making appropriate provisions to accommodate communities' traditional rights over pastures (Hagler Bailly Pakistan, 2005a). This buffer zone management plan proposed to rename the park as the Central Karakoram Protected Area (CKPA) and recommended increasing its area to 17,441 km^2, encompassing the major part of the Great Karakoram mountain range and its sub-groups.

In 2009, the Hindu Kush-Karakoram-Himalaya (HKKH) partnership program proposed a holistic landscape-wide approach to achieve balanced conservation and development outcomes and defined it as the Central Karakoram Conservation Complex (CKCC) (Nawaz et al., 2009). Although different titles for the protected area have been proposed by different organizations involved in developing its management plan, the government has not as yet approved any of these plans and it is still a "paper park".

The significance of ecotourism is evident in the CKNP management plans of IUCN (1999), Hagler Bailly Pakistan (2005a) and Nawaz et al. (2009). For instance, out of four, the two primary objectives identified in the draft management plan of Nawaz et al. (2009) include improvement of livelihood opportunities for the resident buffer zone communities and development of the CKNP as an ideal tourism destination for ecotourism, adventure and cultural tourism. Both these priority areas are interlinked and provide a sound background to the research study on sustainable tourism in the CKNP.

1.8 Research methodology

Details of the research design and methodology employed in this research are discussed in Chapter 4. This section briefly illustrates the mixed method approach adopted during the research process.

Firstly, an extensive literature review was carried out to define the relevant definitions, concepts and theories underpinning the research. Primary data were collected by combining quantitative and qualitative methods. Using either of these approaches in isolation would otherwise have resulted in a superficial understanding of the research problem. This integrated approach allowed for a synthesized and coherent method of investigation.

Qualitative methods offered a means of accessing in-depth insights into the local context and issues. The semi-structured interviews and document analysis assisted in understanding research question four. The use of a qualitative approach enabled the triangulation of results obtained from the quantitative analysis. In the tourism field, stakeholders' perceptions and attitudes are commonly measured quantitatively using a Likert scale (Pfueller et al., 2011; Yu et al., 2011). The first three research questions that assessed the views and differences in views among

stakeholder groups required quantitative analysis. Therefore, a survey instrument was developed to answer the first three questions.

1.9 Scope and limitations

CKNP was considered a suitable study area for several reasons. Firstly, CKNP is an ecologically fragile destination exemplifying the problem of resource-dependent communities in a peripheral environment. Secondly, CKNP exhibits high-value natural and cultural heritage. Thirdly, CKNP tourism has decreased due to the terrorist stigma attached to Pakistan in recent years. Finally, and most importantly, the protected area authorities, the tourism enterprises, the local communities and the international and national NGOs (interviews with the stakeholders) classify tourism as the most promising activity to reverse the current negative trends of resource exploitation and the insecure image of the destination. By examining the understanding of local and government stakeholders, this research contributes to understanding the kind of issues and problems that enhance and/or limit sustainable tourism in protected areas.

Moreover, the findings of the research have several theoretical and practical implications. From a theoretical perspective, the research adds to the body of knowledge asserting that complexity, stakeholder, and collaboration theories are integrated and apply to the sustainable tourism phenomenon in protected areas. Secondly, it provides an exploratory assessment of the environmental and sustainable tourism concepts as perceived by multiple stakeholders at the destination level. Thirdly, the research develops a conceptual framework for an integrated systems approach to sustainable tourism development in protected areas. In terms of practical implications, this research identifies the key policy and management implications for sustainable tourism development in a high alpine tourist destination. It provides a better understanding of sustainable tourism development to protected area policy makers and planners about local stakeholders as an interrelated group and how they can be integrated in tourism development to create a mutual understanding of the concept between and within destination stakeholders.

In addition to its scope, the research also has some limitations. First, the small sample size of 292 respondents in the study was a limitation of the research. Smaller samples tend to have greater sampling error (Nunkoo & Gursoy, 2012). Due to the

small sample size the results of this study may not be fully representative and may limit the generalizability of the findings. The findings may also have limited external validity as the data was collected from one protected area only and cannot be compared with other protected area destinations experiencing different forms of tourism development. Secondly, many respondents were unfamiliar with the survey respondents' role and did not have a clear conception of what was expected of them. Even in a well-designed research project, only about half the respondents fully understand all questions (Neuman, 2005) and this could have created a response bias.

Thirdly, the international and local non-governmental organizations (NGOs) that have a high stake in protected area policy and management issues were not considered as a distinct stakeholder group when designing this research. This is because during the initial development of the research proposal only four stakeholder groups, that is, the protected area authorities, local community, tourists and tourism enterprises were deemed to be the key actors in the implementation of sustainable tourism development in CKNP. It is only when the field research started it was realized that the international and local NGOs were significantly contributing to the CKNP objectives as a protected area. To include the NGOs in the research, their records and manuscripts were analysed in the document analysis.

Finally, previous research had not measured the perceptions of the community and protected area authorities about their capacity for sustainable tourism, so previously validated questions could not be used. It would be beneficial for future research to check the validity and reliability of the two scales in different research settings.

1.10 The thesis structure

The overall structure of this thesis is based on a seven chapter model, as shown in Figure 1.1.

The structure of the thesis is organized as follows:

Chapter One – Introduction: This chapter provides an overview of the thesis and explores the context in which protected areas exist. It introduces a complex systems approach as a novel method for investigating interactions among protected areas, tourism and local communities. It then outlines the purpose of the research and its significance as well as its scope and limitations.

Chapter Two – Literature review: This chapter reviews and synthesizes areas of relevant prior research from the literature. The areas discussed in the literature review include complexity, sustainability and collaboration theories; a discourse on sustainable development and sustainable tourism; and the application of different approaches and tools in sustainable tourism.

Chapter Three – The study area: This chapter provides an overview of the history and social-ecological structure of CKNP and issues related to tourism management and its relationship to surrounding local communities.

Chapter Four – Research design and methodology: This chapter describes the research methodology applied in the empirical part of the study. The chapter begins with an overview of the research design. It then elaborates on the selection of sampling techniques. It outlines the data collection process and methods used to analyse and interpret the data.

Chapter Five – Interest, understanding and capacity of stakeholders: This chapter addresses the first three questions of the research. It reports on the descriptive and comparative statistics of data gathered. The chapter begins with a classification and profile of survey respondents using the exploratory survey and then presents the descriptive and comparative statistics and findings

Chapter Six – Barriers and opportunities for sustainable tourism: This chapter presents the interpretation of findings derived from the interviews and focus group discussions. It also supplements and triangulates the findings from the quantitative data analysis.

Chapter Seven – Discussion, conclusion and recommendations: This chapter presents the interpretation of findings derived from the surveys, interviews and focus group discussions. It provides a guideline for tourism management in the protected area. It finally concludes with a summary of key research findings, their implications for theory and avenues for further research.

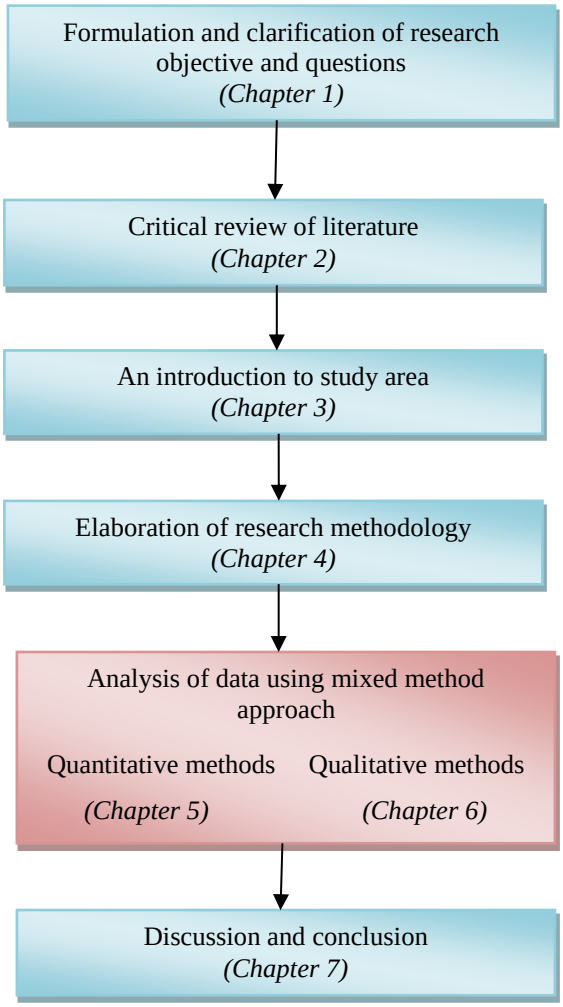

Figure 1.1: The structure of the thesis

CHAPTER TWO

Literature Review

2.1 Introduction

The concept of sustainable development and its application to tourism has received considerable attention in the recent past (Hardy et al., 2002; Lansing & De Vries, 2007; Liu, 2003; Ruhanen, 2008; Turk et al., 2009; Weaver & Lawton, 2010). However, the body of knowledge on sustainable tourism has not been transferred to the destination at the operational level where it is actually needed by those who plan and manage tourism (Ruhanen, 2008). There are relatively few examples of successful sustainable tourism initiatives, and ways still need to be explored to put them into practice (Gracia, 2012; Swarbroke, 1999). This chapter gives a backdrop for the research that attempts to explore ways in which protected area tourism could be managed in a more sustainable manner.

This chapter is divided into nine sections. Section 2.1 illustrates the linkages between the four theories that underpin the research. An overview of the historical evolution of the terms "sustainable development" and "sustainable tourism" is provided in section 2.2. Section 2.3 explores the theories and traditions linked to sustainable tourism. Section 2.4 defines the terms "stakeholders" and "collaboration" and provides a discourse on why the stakeholders' collaboration is imperative for the emergence of partnerships. Sections 2.5 and 2.6 relate the significance of the theories applied in the research with protected area tourism. The significance of assessing stakeholders' perceptions and views about the environment, and their understanding of and capacity for sustainable tourism is discussed in Section 2.7. Based on the literature review, Section 2.8 develops a conceptual framework for a collaborative approach to sustainable tourism in protected areas. Section 2.9 provides concluding remarks on the chapter.

The literature review is based on the four key postmodern interrelated theories that the research has adopted to develop a collaborative management approach to tourism development in protected areas. Figure 2.1 illustrates the significance of these theories for establishing an integrated collaborative tourism

management system in protected areas. Within this collaborative framework, complexity theory is typified by a web of entity and activity systems. The environmental, economic and social dimensions within sustainability theory represent the entity systems. On the other hand, stakeholder theory represents the activity systems where multiple actors interact among themselves and with and within the entity systems. In other words, these activity and entity systems form an interconnected web of activity that is unpredictable, is susceptible to change and is evolving and emergent. Collaboration theory provides a conceptual basis to explore the complex interrelationships among multiple stakeholders and to assess the barriers and opportunities that influence the development of an integrated complex adaptive co-management tourism system in protected areas.

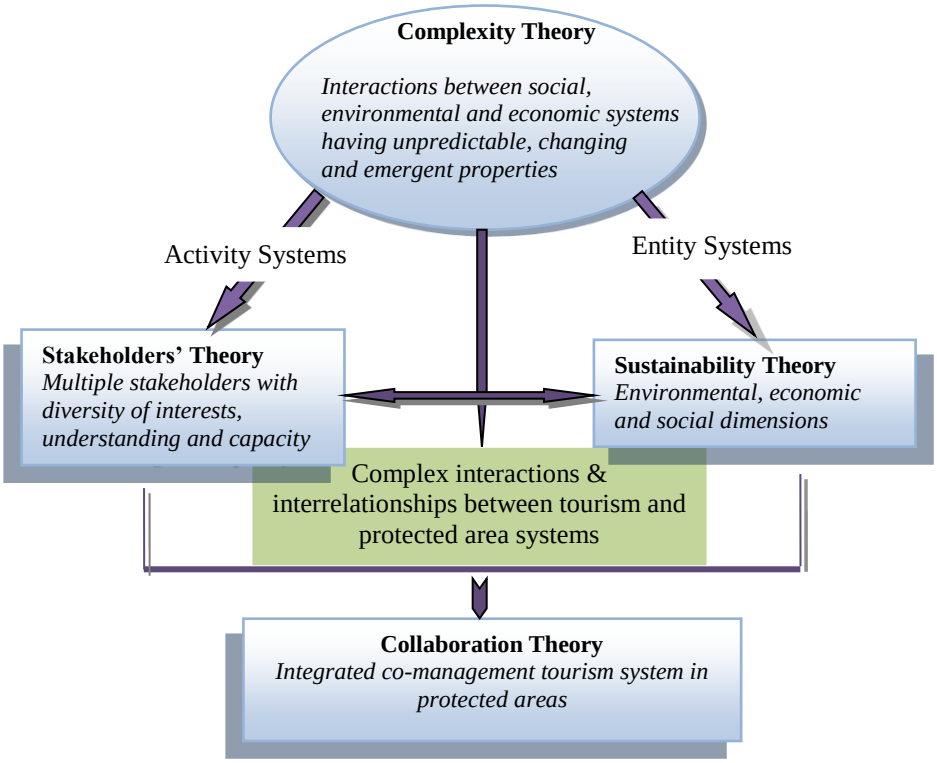

Figure 2.1: Theoretical framework of research

The sustainability theory presents two distinct paradigms, anthropocentric and eco-centric (Baker et al., 1997). Anthropocentric approach focuses on an interventionist approach to development where nature is seen as the main resource for socio-economic development. In contrast, eco-centric paradigm adopts a holistic stance that integrates social needs, ecological limits and quality of life, treating the natural and social systems as co-evolving each dependent on outputs from the other and providing inputs to it (Espinosa et al., 2008). The eco-centric approach provides

the ideal model for strong sustainability whereas the anthropocentric paradigm is viewed from point of view of weak sustainability.

Sustainability theory underpins the importance of understanding the interactions between humankind and the environment. It requires a balanced, long-term relationship between actors and their environment (Espinosa et al., 2008). Moreover, these interactions depict the complex and multidimensional character of sustainability theory (Martens, 2006). Therefore, the theory of complex systems can be employed as an umbrella mechanism to bring together the various parts of sustainability theory. It is being increasingly recognized that humans at multiple levels, including individuals, organizations, and societies, are more likely to survive "sustainably" when they systematically integrate key aspects of the natural environment and socio-economic aspects as primary factors in their perceptions, decisions, actions and reflections (Starik & Kanashiro, 2013; Starik, 2010)

Dagnino (2004) asserts that in a complex system intense social interactions lead to the formation of social capital; the continuous exchange of information and knowledge leads to shared knowledge; and deep rooted commitment to work together and to perform jointly leads to collective identity. The accumulative outcome is a strategically coherent complex adaptive system. Yet McDonald (2009) argues that, despite this recognition, tourism continues to take a reductionist approach which does not recognize its inherent complexity that intertwines diverse social values with ecological values.

From the above debate it becomes quite clear that there are evident interrelationships between the contemporary theories discussed earlier in Section 1.1 and all derive their impetus from complexity theory. Within the complex systems perspective, if a protected area is viewed as an entity system as shown in Figure 2.1, then the interaction between tourism and other sub-systems and activity system adds further to the complexity of the protected area system. The challenge of sustainable tourism management is, therefore, compounded as conflicting public-private interests and interrelationships within activity systems impact the economic, ecological and socio-cultural domains of the entity system (Jamal & Stronza, 2009).

2.2 Sustainable development and sustainable tourism

The concept of sustainable development was officially illustrated at the Stockholm Conference on Humans and the Environment in 1972. The conference promoted the concept of integrating cultural, social and ecological goals with development (Sagasti & Colby, 1993). The actual conceptualization of the term "sustainable development" emerged in the early to mid-1980s. IUCN published the *World conservation strategy* in the 1980s. It was one of the first reports that introduced the term sustainable development (IUCN, 1980). Later the WCED (1987, p. 43), in its report *Our common future*, defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" and placed the concept of sustainable development at the centre stage of economic development.

Parallel to the increasing recognition of the sustainable development concept was the recognition of the negative impacts of tourism on ecological and cultural resources. Cooper et al. (1993) argued that the realization of the detrimental impacts of tourism and the rise of environmentalism and "green" consciousness in the mid to late 1980s resulted in a reconsideration of the role and value of tourism at destinations. Mathieson and Wall (1982) spelt out the worldwide impacts of tourism in their seminal work, *Tourism: Economic, physical and social impacts*. The use of the term "green tourism" was coined and reflected the rise of interest in environmental issues in the late 1980s (Swarbrooke, 1999).

From 1987 onwards the growing interest in sustainable development and sustainable tourism was reflected in the numerous international conferences, summits, charters and forums. In 1992, the profile for sustainable development was raised significantly and further conceptualized in *Agenda 21* that was adopted by most of the countries during the United Nations Rio Summit (Foxlee, 2007; Thrower & Martinez, 2000). However, the concept of sustainable tourism was not specifically addressed and therefore was not incorporated in the 29 principles outlined in the Agenda and in the articles of Convention on Biodiversity (CBD). Concurrently, Tourism Concern and the WWF published a discussion paper *Beyond the green horizon: Principles of sustainable tourism* in 1992 (Eber, 1992). It outlined 10 principles that broadly matched the principles outlined in Agenda 21. It was followed by the *Charter of sustainable tourism* in 1995 prepared at the World Conference on

Sustainable Tourism in Lanzarote, Spain. In the wake of tourism's growing global economic importance and significant use of natural resources, the World Tourism Organization (WTO) introduced an action plan for sustainable tourism development, *Agenda 21 for the travel and tourism industry* (WTO, 1995).

In 1997, the *International guidelines for sustainable tourism* began addressing the relationship between tourism, biodiversity and protected areas (Foxlee, 2007). *The Berlin declaration on biological diversity and sustainable tourism* (CBD, 1997) and *The European charter for sustainable tourism in protected areas* (1997) explicitly focused on sustainable tourism with conservation outcomes. During the same year WTO developed the *Global codes of ethics for tourism* for the responsible and sustainable development of international tourism (WTO, 2001).

The integration of sustainable tourism in the United Nations (UN) international agendas was set in motion in 1999 when the Convention on Biological Diversity (CBD) decided to consider sustainable use, including tourism, as one of its themes (SCBD, 2009). A workshop on tourism and biodiversity in June 2001 (UNEP, 2001) resulted in the development of *International guidelines on sustainable tourism in vulnerable ecosystems*. Taking into account the outcomes of the World Ecotourism Summit (2002), a revised version of the guidelines was adopted as the *Guidelines for biodiversity and tourism development* in 2004 (CBD, 2004).

The setting up of an International Task Force on Sustainable Tourism Development (ITF-STD) took place in 2006 during the 9th Special Session of United Nations Environmental Program's (UNEP) Governing Council (Gunneng et al., 2006). The main objectives of the ITF-STD were, "to encourage the implementation of actions that promote sustainable tourism through the development of support tools; and to present new initiatives and support existing ones that may inspire pilot projects and good practices in other countries to foster sustainable tourism development as defined by the WTO" (Gunneng et al., 2006, p. 12). A set of policy recommendations on sustainable tourism development, built upon the projects of the ITF-STD and lessons learned on promoting sustainable tourism, was formulated in 2009 (Gunneng et al., 2006). The work of the ITF-STD enabled a transition of this initiative into a United Nations Partnership for Sustainable Development in 2011. It emerged as a more permanent successor to the ITF-STD. The mission of the Global Partnership for Sustainable Tourism is to bring together international organizations,

governments, civil society and tourism trade groups as members of the Global Sustainable Tourism Partnership to encourage networking and facilitate access to information about sustainable tourism, encourage the adoption and implementation of sustainable tourism policies and disseminate information about success stories.

2.3 Tracking the analogies in sustainable tourism and sustainable development

The following section provides an overview of the key aspects of sustainable development and its links with sustainable tourism over time. Jafari (1990) presented a conceptual framework that represented four platforms of tourism development across a timescale. Figure 2.2 compares the four descriptive platforms of tourism development he suggested with Hunter's (1997) spectrum of sustainable development and the different approaches and ethical stances on economic growth over time.

The advocacy platform of 1950s and 1960s tourism focused only on economic gains. Its growth was encouraged without any caution and ceiling and with disregard to its negative social, cultural and environmental implications. The advocacy platform coincides with an egocentric ethical approach and a utilitarian approach to development with very weak sustainable development attitudes.

In the 1970s, the cautionary platform took over in academic circles with the realization of the detrimental consequences of mass tourism. It coincided with the anthropocentric sustainable development stance. The cautionary platform advocated that to avoid negative consequences for destinations regulations needed to be put in place. In the 1980s it was challenged by researchers and interest groups with concern for cultural and natural values and was taken over by the adaptancy platform when the concept of mass tourism was debated against alternative tourism (Weaver, 2008).

With the growing concern by the 1990s that both alternative and mass tourism could have positive and negative implications, the fourth or knowledge-based platform recognized tourism as a complex social, cultural and economic phenomenon operating as a system that needed to be informed by objective as well as scientific knowledge (Moscardo, 2008). It coincided with the bio-centric approach to sustainable development.

The sustainable development spectrum	Environmental Metaphors	Ethical Stance	Evolution of sustainable tourism	Approaches
1940s-1960s Very weak utilitarian; growth oriented and resource exploitative	**Frontier/Cowboy** Imperialism/economic development and exploitation of natural resources	**Ego-centric** Reductionist/humans are separate and superior to nature; have the right to exploit nature; non-human entities have no inherent rights; environment has instrumental value	**Advocacy platform** Mass conventional tourism; satisfy tourists and the tour operators; stresses on economic benefits and exponential development with disregard to natural and cultural values	**Utilitarian** Myth of superabundance; infinite resources in a finite world; continued well being assured through economic growth and technical advancement. infinite substitution between natural and human made capital
1960s-1980s Weak utilitarian; resource conservationist; growth is managed and modified	**Life boat** overcrowded resource poor looking towards un-crowded resource rich	**Anthropocentric:** limits on carrying capacity; spatially restricted; accessibility to the resource rich; benefits higher income groups and rich countries while costs are born by poor in majority	**Cautionary platform** concern for culture and natural values; coercive and authoritarian; strict regulations	**Resource conservationist** rejection of infinite substitution of natural and human made capital; human made and natural capital constant or rising through time; decoupling of negative environmental impacts from economic growth
1980s-1990s Strong (eco)systems perspective; adherence to intra- and inter-generational equity;	**Spaceship ethics** earth visualized from a space ship as finite ball upon which the life on earth depends	**Bio-centric:** closed systems model with finite resources; scientific and objective; resource preservationist; recognizes primary value of maintaining the functional integrity of ecosystems	**Adaptancy and knowledge-based platforms** Concept of mass tourism against alternative tourism; local communities at lowest ladder of participation; top down regulatory frameworks; prescriptive; conservation centered; value free; technical	**Steady state economy** recognizes functional integrity of ecosystems; linear and objective; follows the constant natural assets rule, zero economic and human population growth; adherence to intra- and intergenerational equity
1990s-2000s Very strong resource preservationist to the point where utilization of natural resources is minimized; nature's rights or intrinsic value in nature	**Living earth ethics** people as part of nature dependent upon it; ecological beings just as a tree or whale	**Eco-centric** Environment is a key stakeholder; highly participatory; grounded in cosmos; holistic; interaction of humans, environment and economy; environment has intrinsic value	**Sustainability and ethics platforms** concepts of sustainable and ecotourism; emphasis on natural and cultural integrity, respects indigenous, cultural and social value systems and intrinsic value of the biosphere	**Bio-ethical** nature first; intrinsic value of nature; non linear and subjective; accepts the complex inter-relationships and inter-dependencies within ecological systems

Figure 2.2: Evolution of sustainable tourism within the sustainable development spectrum.
Source: Duffy (2002); Hallen (2003); Holden (2003); Hunter (1997); Jafari (1990); Macbeth (2005); Moscardo (2008); Weaver (2008)

Macbeth (2005) argued that sustainable development was a value-based paradigm; therefore, for tourism to be sustainable, planners, policymakers, researchers and tourist agencies needed to shift their values from anthropocentric ethics to eco-centric ethics, such as defined by Hallen (2003) as "The Living Earth Ethic".

According to Macbeth (2005), by becoming overly scientific in its epistemology tourism was becoming restrictive in its understanding of the complex social and environmental dynamics that are driven by the diverse values and ethics systems. He added sustainability and ethics as other platforms of sustainable tourism.

2.4 Theories and traditions in sustainable tourism

Multiple meanings have been attached to the term "sustainable tourism" (Bramwell & Lane, 1993; McCool & Moisey, 2001; Saarinen, 2006). The WTO (1997, as cited in Jamal & Stronza, 2009, p. 170) defines sustainable tourism as "leading to management of all resources in such a way that economic, social, and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity, and life support systems."

Keeping in view the interrelationship between sustainability and joint interaction of the stakeholders, the comparison of the two definitions clearly illustrates that sustainable tourism is guided by stakeholders, collaboration and sustainability theories to achieve the desired goals of tourism for social, environmental and economic gains. In all these definitions, the theoretical concept of sustainability in tourism is inextricably linked to the social, environmental and economic circumstances that exist within a given area.

This is very well reflected in one of the broad definitions of sustainable tourism, namely, "tourism which is economically viable but does not destroy the resources on which the future of tourism depends, notably the physical environment and the social fabric of the host community" (Swarbrooke, 1999, p. 13). Similarly Butler (1999, p. 12) includes an adaptive paradigm to the definition by stating that, "sustainable tourism is that which is developed and maintained in an area in such manner and at such a scale that . . . it remains viable over an infinite period of time and does not degrade or alter the environment (human and physical) in which it exists".

Saarinen (2006) argues that the theory of sustainable tourism is socially constructed, as sustainability can be achieved through a negotiation process initiated among different stakeholders with conflicting interests. There is a growing body of research where social scientists are trying to find links between economy, conservation and community development by applying psychological theories to assess the perceptions of different stakeholders on how they conceptualize economic, social and environmental concerns within the context of sustainable destination management (Jackson, 2007; Stronza, 2007; Tsaur et al., 2005).

Similarly, three traditions based on the values that people attach to the three different elements of sustainability on a local scale have been identified (Holling, 2000; Saarinan, 2006). First, the "resource based tradition" is driven by conservation interests and reflects the limits of the natural resource base and the need to protect it from unacceptable changes caused by tourism activities. This model ignores the adaptive form of economic development that incorporates the human economic needs fulfilled from the resources.

Secondly, the "activity based tradition" refers to the resource needs of the tourism industry and how to sustain the economic capital invested in tourism. Thirdly, the "community based tradition" entails involvement of the host communities in development by enhancing their social capital through empowerment. Holling (2000, p. 1) advances these traditions further and links them to the theoretical frameworks that each group applies to evolve its policies, suggesting that, "the conservationists depend on theories of ecology and evolution, the developers on variants of free market models and the community activists on theories of community and social organization".

The limitations in these three reconstructed traditions are that they are not holistic in approach. They are, rather, independent and, according to Holling (2000), missing key elements that allow for integrative theory and practice that is required for sound decision-making. In other words, these theories do not unite the conservation needs of the area, the resource needs of the industry, and the requirements of social asset building to achieve the objectives of sustainable tourism in ecologically sensitive areas. That is why the idea of an integrated approach in tourism where all the stakeholders jointly engage can significantly contribute to sustainable resource use and has gained strong recognition among policy and

development professionals and researchers (Bushell & Eagles, 2007; Gray, 1989; Jamal, & Getz, 1995; Jamal & Stronza, 2009; Kaján, 2012; McCool, 2009; Mitchell & Eagles, 2001; Tsaur et al., 2006; Wellings, 2007).

2.5 Tourism in protected areas

Research suggests that the relationship between tourism, livelihood and conservation is dynamic and complex (Njole, 2011; Nyaupane & Poudel, 2011). Researchers suggest that factors such as perceptions, attitudes and participation towards protected areas are highly correlated, and can affect stakeholders' intent to engage in conservation (Sirivongs & Tsuchiya, 2012). It is also argued that tourism can empower and can provide direct incentives to the local stakeholders and consequently help develop positive attitudes toward the environment and conservation (Arnberger et al., 2012; Clements et al., 2013; Nyaupane & Poudel, 2011).

Research conducted on linkages among biodiversity, livelihood, and tourism around Chitwan National Park, Nepal revealed that local residents in the highly developed tourism sites were more empowered and more supportive of conservation programs (Nyaupane & Poudel, 2011). Tourism, therefore, if managed effectively and sustainably is increasingly being identified as a tool for conservation and livelihood enhancement (Bushell & Eagles, 2007; Harrison & Schipani, 2007; Sekhar, 2003).

Research also suggests that economic incentives motivate people to become committed to the environment and conservation, particularly in remote protected areas (Campbell et al., 2013; Novelli et al., 2007; Sekhar, 2003). Tourism is recognized as an extremely promising source of finance in protected areas. It is being argued that the income associated with Tourism in protected areas can change the local communities' perceptions of their environment (Coed et al., 2008; Sirivongs & Tsuchiya, 2012) and can increase their commitment to the environment and conservation. The results from a study conducted by Sekhar (2003) in Sariska Tiger Reserve in India showed a correlation between benefits from wildlife tourism and support for protected area conservation, suggesting that benefits impact people's attitudes towards environment and conservation.

A study on tourism for sustainable local livelihood and the conservation of Lake Manyara National Park revealed that increased environmental conservation awareness and sharing of the economic benefits delivered from tourism increased local support for the conservation of the area (Njole, 2011). Törn et al. (2008) explored the opinions of local people about nature conservation and the development of tourism which showed that most of the negative attitudes toward nature conservation were influenced by the lack of involvement of local people in the foundation and management of protected areas, the lack of perceived benefits from protected areas, and interactions between local people and conservation administrators. When local stakeholders had a chance to commit to the planning process they had positive perceptions of and opinions about nature conservation and tourism development (Törn et al., 2008).

Keeping in perspective the above discourse and in view of this importance given to the stakeholders, the research attempts to explore the human-environment relationships within protected area tourism context. It explores the differences in environmental orientations among protected area tourism stakeholders and factors that influence these orientations to help shape future investigations in conservation and livelihood development through sustainable tourism initiatives.

2.6 Collaboration, stakeholders and sustainable tourism

The application of collaboration theory in tourism has arisen from the need to achieve a more inclusive, equitable and sustainable management system to help manage emerging environmental issues (Getz & Jamal, 1994; Jamal & Stronza, 2009; Ladkin & Bertramini, 2002; Plummer et al., 2006; Schianetz et al., 2007; Vernon et al., 2005; Yodsuwan & Butcher, 2012).

According to Graci (2012), the need for sustainability in the tourism industry is well recognized. Therefore, research places a strong emphasis on stakeholders as the key drivers that can steer the process of sustainable tourism. Several attempts have been made to define the nature of stakeholders but the most widely used definition is, “any group or individual who can affect or is affected by the achievement of the organization’s objectives” (Freeman, 1984, p. 25). In the tourism context, Weaver and Lawton (2010, pp. 2-3) add to this definition and define tourism

stakeholders as, “members of an interconnected network in which possibilities exist for interaction among any two or more components within the system”.

However, destinations are hindered in their attempts to move toward sustainability by a lack of collaboration among stakeholders; as no one organization can deliver tourism development. A collaborative multi-stakeholder approach is therefore deemed necessary to support sustainability (Graci, 2012; Ren et al., 2010; Sijlbing, 2010). Gray (1989, p.5) defines collaboration as, “a flexible and dynamic process that evolves over time and requires multiple stakeholders; a process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible”. According to Vernon et al. (2005, p. 328) collaboration refers to, “a number of stakeholders working interactively on a common issue or problem domain through a formal cross sectoral approach”.

Even though it is a recognized fact that each stakeholder group can differ in its understanding and interest regarding sustainable tourism development, there is a high probability that they have a shared interest in some goals of sustainability as reflected in Figure 2.3.

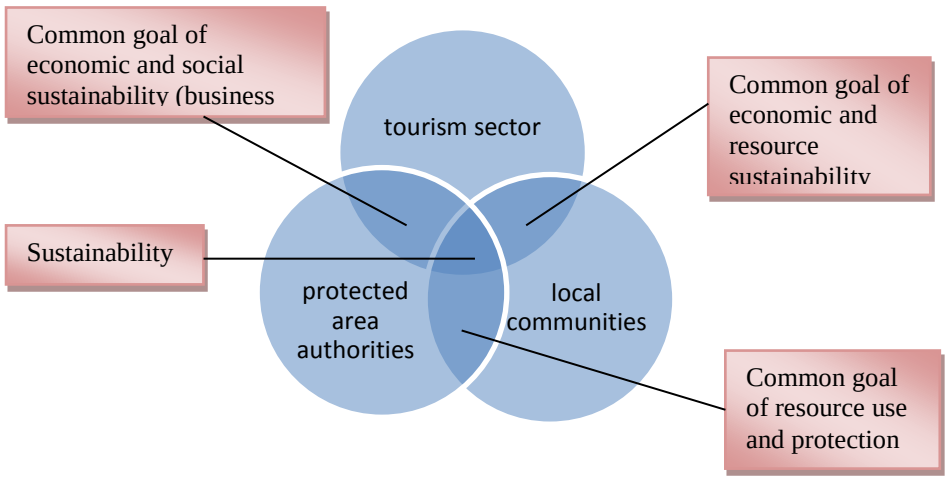

Figure 2.3: Common goals for sustainable tourism in protected areas. Adapted from Timur and Getz (2009)

For instance, protected area authorities and the tourism sector share the common goal of economic and social sustainability; economic and resource sustainability goals are shared between the tourism sector and local communities; and protected area authorities and local communities share sustainable resource use

and protection goals (Timur & Getz, 2009). Sustainable tourism can be achieved only when stakeholder groups share common interests and it requires involvement of all relevant stakeholders from the three major clusters so that a shared vision among destination stakeholders is achieved (Moisey & McCool, 2001; Timur & Getz, 2009).

Markwick (2000) links the interests of the stakeholders with their power. He uses these attributes in the power/interest matrix, that can be attained through stakeholders mapping, that classifies stakeholders in relation to the power they hold and the extent to which they show interest in a particular development project. An important role of tourism management is, therefore, to increase the level of interest of these stakeholders and to create a balance between stakeholders with high level of interest but low levels of power and vice versa. As each of these stakeholders can influence the attitudes of other stakeholders considering the interrelationships that exist among these stakeholders. This interest/power relationship is linked to their interest in achieving either environmental or socio-economic benefits through the use of power. Identifying and analysing the interplay between stakeholders differing interests and powers could be a useful management tool in managing stakeholder relationships (Markwick, 2000).

Moreover, the concept of collaboration is not possible without the emergence of partnerships. Collaboration, specifically through multi-stakeholder partnerships, is viewed as an effective way to support initiatives in tourism development (Graci, 2012; Schianetz et al., 2007). Thus, stakeholder collaboration has emerged as an important tool to manage sustainable tourism destinations (Yodsuwan & Butcher, 2012). The above case in point reflects that st Markwick akeholders are the key drivers in steering such a collaboration process as is evident in Vernon et al.'s (2005, p. 328) definition of collaboration, namely, "a number of stakeholders working interactively on a common issue or problem domain through a formal cross sectoral approach".

2.6.1 Partnerships and collaboration

Although the stakeholder concept was present in the literature as early as the 1930s (Preston & Sapienza, 1990), the theory was mainly developed in 1984 by Edward Freeman. Since the publication of Freeman's book in 1984, *Strategic*

management: A stakeholder approach, the usefulness of stakeholder theory has been proven in developing networks for collaboration. A wide body of theoretically informed empirical studies exist that examine tourism partnerships specifically for managing inter-organizational relations within a fragmented tourism sector in small scale destinations (Bramwell & Lane, 2000; Dredge, 2006b; Lovelock, 2001; March & Wilkinson, 2009; McCool, 2009; Vernon, 2005). In this research, participation is defined as a process where individuals, groups and organizations choose to take an active role in making decisions that affect them (Rowe et al., 2004; Wandersman, 1981; Wilcox, 2003).

Patricia and Carlos (2010) in their empirical study on the potential of management networks in rural tourism assert that participatory management facilitates agreements and synergies that lead to more innovative and efficient solutions for tourism when compared with those that are produced individually. Such tourism partnerships have enabled a more coordinated and sustainable management of natural resources and stimulated processes of social innovation by promoting collective action at a local level and contributing to local development. Similarly, UNEP (2003) states that a sustainable approach to tourism in destinations requires an efficient mechanism that involves all stakeholders, that is, an approach that balances the interests of tourism enterprises, tourists and local residents.

Vernon et al. (2005) are of the view that in theory such public-private partnerships are said to provide a more equitable and inclusive management process compared to the traditional approaches to management. However, in reality such collaborative projects present problems and challenges such as effective organization, representation and evaluation of the effectiveness of outcomes (Graci, 2012; Jamal & Stronza, 2009; Plummer et al., 2006).

Similarly, there is general agreement among researchers that the diverse and fragmented nature of the tourism sector often acts as a barrier to the acceptance and adoption of sustainable practices (Bramwell & Alletorp, 2001; Bramwell & Lane, 2000; Vernon et al., 2005). It is for this reason Faulkner (2003) asserts that the achievement of sustainable development objectives hinges on the adoption of a participatory model, involving meaningful engagement of the local community, the tourism industry and the relevant government agencies in the strategic planning process. This argument is further supported in research where stakeholder

participation has been identified as a prerequisite of the sustainable tourism planning process (Caffyn & Jobbins, 2003; Graci, 2012; Hall, 2000; Ruhanen, 2008; Simpson, 2001).

2.6.2 Integrated approach in sustainable tourism

There are numerous studies, especially in relation to protected areas, asserting that to achieve sustainable tourism the approach must be holistic and integrated (Higham et al., 2009; Larson & Poudyal, 2012; Scarpino, 2011). However, there are very few studies that actually clarify the meaning of the term "integrated". For instance, a number of researchers argue that the need for integrated sustainable tourism is ever present to reconcile the conflicting economic, environmental and social factors (Dodds, 2007; Manning, 1999; Ritchie, 1999). There are few references to what facets need to be integrated and how and at what level this integration takes place within a complex tourism system.

There are some exceptions, however, where the researchers have indicated what an integrated approach in tourism actually implies. Jamal and McDonald (2011), for instance, in their study of heritage tourism illustrate the need for an integrated theoretical framework of the micro-individual and macro-social context, drawing from diverse disciplines. Loulanski and Loulanski (2011) reflect on a cross-disciplinary thematic investigation on sustainable integration of heritage and tourism.

Similarly, Mitchell and Eagles (2001), Mitchell and Reid (2001) and Weaver (1999) emphasize the importance of a high degree of community integration in tourism planning, management and ownership for sustainable tourism outcomes. Other studies in sustainable tourism research emphasize integrating environmental, economic and cultural concerns into the tourism industry (Briedenhann & Wickens, 2004; EU, 2002; Priestly et al., 1996; Saxena & Ilbery, 2008; Stem et al., 2003; Wahab & Pigram, 1997).

An attempt is made to identify the various domains where this integration occurs within the tourism system. The integrated nature of complex tourism scholarship is depicted in Figure 2.4, presenting the integration in the different domains mentioned above. Each of these integrated domains could inform tourism research and management processes. It is recognized that these domains are not

considered as discrete entities. Rather, each domain overlaps and interacts with the other.

Integration in theory can be perceived as theoretical integration, whereby different theoretical perspectives are integrated to inform tourism research (Jennings, 2010). These theories and concepts from other fields "when tossed into the tourism studies cauldron…can yield something different and distinctive" (Tribe, 2010, p. 12). The combination and synthesis of different yet interdependent theories such as complexity, stakeholder, collaboration and sustainability, among others, have enriched and opened innovative doors for tourism research. Informed by these theories the field is very much dominated by positivist/post-positivist paradigms but is transitioning towards constructivist/interpretivist perspectives (Tribe, 2010).

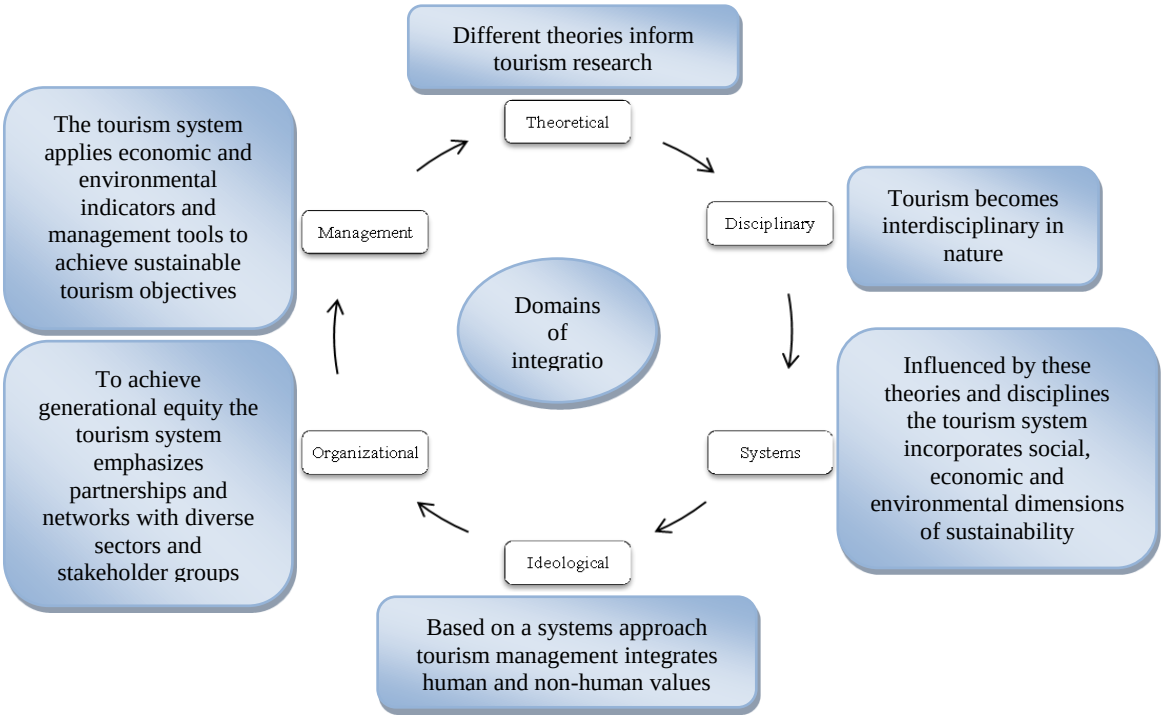

Figure 2.4: Domains of integration in the tourism system

The domain of disciplinary integration provides a holistic view of the tourism system. As Hall et al. (2004, p. 14) affirm, "Tourism is a complex and multi scalar field; it is unlikely to be the sole domain of either a single paradigm or a single discipline", acknowledging the fact that tourism as a discipline has evolved over time

drawing from other disciplines. This interdisciplinary approach in the absence of a specific tourism discipline has informed the tourism research process and its theoretical frameworks (Jennings, 2010; Weaver & Lawton, 2010). According to Tribe (2010), it has borrowed and adopted concepts and terminology from established disciplines and has enriched scholarship in tourism research. This integration at disciplinary level fills the knowledge gaps inherent in its complex, fragmented and non-linear nature (Keske & Smutko, 2010; Koutra, 2010, Schianetz et al., 2007).

The systems domain depicts integration of human and natural systems (Farrell & Twining-Ward, 2004) that are in mutual interaction. There is an inclination to view the tourism system as a complex, dynamic social-ecological system composed of interconnected social, economic and environmental sub-systems that need to be explored and studied in unison or holistically (Farrell & Twining-Ward, 2004; Schianetz & Kavanagh, 2008). Therefore, systems integration postulates that the tourism system needs to be viewed and studied not separately but as an integrated social-ecological system. This is particularly important for the study of tourism in ecologically fragile protected areas that are highly dependent on their natural resources (Honey, 1999). Integration in protected area tourism scholarship at systems level, therefore, provides a greater understanding of the interactions between ecosystems and social systems and a detailed knowledge of systems behaviour and its subsequent influence on tourism sustainability.

In ideological integration, social, economic and environmental values and ethics for a sustainable approach to tourism management are brought together. Rather than judging nature with only instrumental values that determine nature's worth by its usefulness to humans, ideological integration provides intrinsic rights to nature, especially focusing on ecological sustainability, as the wellbeing and continuity of tourism in protected areas is inextricably linked with the preservation of nature. In other words, the focus shifts from an atomistic (individual-centred) (Bergman, 1998), anthropocentric or bio-centric worldview to a holistic (earth-centred) worldview. Such a holistic approach integrates and recognizes the intrinsic and instrumental values of species, ecosystems and the biosphere, and emphasizes the importance of protecting the ecosystems in which those species live.

Organizational integration refers to the networks and partnerships that emerge for an effective sustainable tourism system. Estevão and Ferreira (2009) call this integration a tourism cluster and define it as a geographic concentration of companies and institutions interconnected in tourism activities. Porter (2000) describes a cluster as a geographically close group of interconnected companies, suppliers, service providers and associated institutions, linked by analogy and complementarity. Organizational integration, therefore, emphasizes the need to plan and structure organizations as interdependent organizational networks (Patricia & Carlos, 2010). Research has shown that organizational integration during the planning process leads to enhanced socio-ecological benefits, thus increasing the potential for tourism sustainability (Walsh et al., 2001; Weaver & Lawton, 2010).

Management integration informed by disciplinary integration facilitates in determining the policy, planning and management related aspects of tourism. The achievement of sustainable tourism objectives depends on the adoption of a participatory model (Murphy, 1985). An integrated management process involving the meaningful engagement of the community, along with tourism stakeholders and relevant government agencies, requires a collaborative approach among multiple stakeholders (Faulkner, 2002). Such a collaborative management system underpins the integration of tourism with other sectors and fosters understanding of the inter-relationships between socio-cultural and environmental dimensions.

2.7 Protected areas and collaborative tourism development

The inclination towards often debated ethical and value-based social and ecological concerns has influenced the protected area tourism scholarship in the last two decades. Therefore, tourism research in protected areas has lately drawn attention towards tourism as a tool for conservation and social development (Bushell & Eagles, 2007; Butts & Sukhdeo-Singh, 2010; Kidder & Spears, 2011, Sofield & Mactaggart, 2005). Deriving positive social and environmental benefits from tourism has given rise to the concept of sustainable tourism. There has been a shift from the dominant scientific model to an ecologically sensitive green paradigm (Weaver, 2008; Weaver & Lawton, 2010).

Researchers point toward positive as well as negative implications of protected area tourism. For instance, some research suggests that stakeholders

closely associated with protected areas are increasingly realizing benefits from tourism in these areas (Eagles & McCool, 2003; Strickland-Munro & Moore, 2012; Wall & Mathieson, 2006). These benefits include economic and employment opportunities, the use of natural resources, shared decision-making and involvement in park or tourism management (Strickland-Munro & Moore, 2012; Scherl & Edwards, 2007). On the other hand, research also asserts that in a complex protected area system, planning, development and management issues give rise to resource management and governance issues, particularly relating to the success of sustainable development planning and strategies (Scheyvens & Russell, 2012).

In particular, alpine protected areas, especially in developing countries, are not only characterized by vulnerable and fragile environments, but are home to underprivileged indigenous communities which have a deep-rooted social, economic and environmental connection with the protected area. Communities that reside within or around these protected areas encounter problems from involuntary displacement to restricted rights of access to resources for their livelihood such as the collection of firewood, fodder and medicinal plants (Nyaupane & Poudel, 2011).

In addition, crop raiding and loss of livestock by predators is a problem faced by communities frequently in and around protected areas (Fungo, 2011; Sharma, 1990; Studsrod & Wegge, 1995). This marginalization and deprivation of the local communities has in many instances led to their disenfranchisement and their lack of support for protected area conservation (Brockington & Igoe, 2006; Ghimire, 1994; Sharma, 1990). Moreover, as popular destinations, these alpine protected areas face significant challenges associated with the environmental and social-cultural costs of unplanned development of conventional mass tourism such as pollution, ecological pressures and disruption of social life (Sirakaya-Turk et al., 2001).

In a protected area system the relationships between livelihood and conservation, tourism and livelihood enhancement, and conservation and tourism are dynamic and complex (Adams et al., 2004; Croes & Vanegas, 2008; Ollenburg & Buckley, 2007; Nyaupane & Thapa, 2004). There is no single framework to examine the complex relationships among these concerns (Nyaupane & Poudel, 2011). As a result of these complex social-ecological interrelationships underpinning the protected areas, Nunkoo and Gursoy (2012) state that sustainable development of tourism in such economies needs to be closely linked to local community

involvement (and livelihoods). Moreover, how these communities view and understand sustainable tourism can reveal their level of willingness to support sustainable tourism policies or to actively participate in sustainable tourism projects (Sirakaya-Turk et al., 2008)

Protected area tourism is, therefore, bound by complex "nested systems of biophysical environments, tourism and park management structures, community resident systems, local-global systems and use-conservation gap" (Jamal & Stronza, 2009, p. 169). It is for this reason that collaborative approaches in protected areas are taking root and they are being vigorously researched as policy and management options (Bushell & McCool, 2007; Holling, 2000; Jamal & Stronza, 2009; Wellings, 2007). The notion is to address the concerns over the loss and depletion of the very resources that sustainable tourism advocates to protect and conserve for social, economic and aesthetic needs in its definition.

This underlying need for a collaborative system stems from the growing recognition that multiple actors with differing systems, diverse views of corporate responsibility and conflicting interests are involved in the management of tourism in protected areas. The underlying goals of these stakeholders are somewhat different, with protected-area managers focusing on biodiversity conservation, tourism operators focusing on providing a visitor experience that yields economic profit, and the local communities focusing on resource use and land rights (Pfueller et al., 2011).

However, the theoretical framework of collaboration attempts to bridge the gap between tourism management and protected area management objectives. It does so by merging and complementing the two distinct economic and conservation interests and creates a trilogy by incorporating the social interests through partnerships between the tourism sector, the protected area authorities and the local communities. The other stakeholders that provide monetary, technical and value added support are the international donors, the tourists, the researchers, NGOs and the academicians.

Since tourism in protected areas operates within a nested set of systems (Farrell & Twinning-Ward, 2004), the requirements for its sustainability depend upon inter-organizational harmony and relations. These can be acquired through joint management plans resulting from collaborative management agreements. To be successful, such agreements need to reflect and respect the ownership rights of local

communities, commercial interests of tourism organizations, and needs of protected area agencies for conservation. Collaboration thus works as a bridge among these differing sectors which involves long term integrated planning and management where the tourism objectives merge with resource conservation and planning for sustainable livelihoods and social wellbeing.

However, most of the successful models of tourism in protected areas that portray collaborative management have strong funding mechanisms and a strong technical and scientific base (Jamal & Stronza, 2009; Wellings, 2007). These financial and technical resources are either derived from international bilateral and multilateral donors or, in some instances, are committed by the governments as a policy initiative. Sustainable tourism management, therefore, is a costly affair. Jamal and Stronza (2009) further argue that for any collaborative initiative to succeed it requires a large funding base to cover the infrastructural, capacity building, establishment, consultants', and conservation, social and management experts' costs.

It also demonstrates that where large funding mechanisms are available for support, the differing interests of the stakeholders merge to create a win-win situation (Jamal & Stronza, 2009). The reason is obviously that benefits/incentives which accrue from such enterprises are equitably shared among all the stakeholders and everyone collaborates for mutual benefits. Research by Pfueller et al. (2011) revealed that the most important factor enabling sustainability outcomes was provision of benefits to partnership members. Other factors included increased financial support, inclusiveness, supportive organizational and administrative arrangements, and direct involvement in decision-making (Pfueller et al., 2011).

Such investments also act as a driving force for the communities to invest their own resources through voluntary services such as labor and in the promotion and marketing of the product. This motivation among the community is only possible when the community is not only informed and involved as an equal partner in decision-making but also is one of the main shareholders in the entire process of livelihood development.

2.8 Complexity theory, adaptive co-management and participatory governance in protected areas

The previous sections clearly demonstrate that both sustainable development and sustainable tourism, and the interdependence that exists between stakeholders, sustainability and collaboration, are complex in nature. Likewise, sustainable tourism as a complex phenomenon which functions as a chaotic, non-linear, non-deterministic system is widely discussed within the academic tourism literature (Dredge, 2006b; Faulkner & Russell, 1997; Fennell, 2002; McKercher, 1999; Ren et al., 2010; Swarbrooke, 1999). Empirical and theoretical research shows that ecological and social systems are complex systems characterized by both positive and negative feedback loops that operate over spatial and temporal scales. This interaction results in incremental changes and surprises which can have consequences for ecosystems and human welfare (Duit & Galaz, 2008).

Similarly, there is growing realization that protected areas are part of a complex social-ecological system characterized by instability, non-linear relationships and unpredictable outcomes (Berkes & Folke, 2000; Levin, 2002; Olsson et al., 2004; Plummer & Fennell, 2009; Wilgen & Biggs, 2011; Zubra et al., 2012). For instance this complexity occurs due to the interdependencies between ecological and social systems (Otto & Chobotova, 2013). Complexity theory interpretations reveal that formal and informal organizations and institutions serve as attractors or activity systems within the wider protected area system as depicted in Figure 2. 1. Diverse and dynamic preferences of heterogeneous actors can oscillate in either more stable and desirable basins of attractions or can show more chaotic outcomes (Kijazi, M. H., & Kant, S. (2013).

Protected areas are therefore comprised of four distinct but interdependent sub-systems, namely the parks system, the tourism system, the ecological system and the community resident system, that contribute to the complexity of the whole system (Jamal & Stronza, 2009). Jamal and Jamrozy (2006) maintain that a useful way to approach the management of tourism in protected areas is to view them as complex planning domains as these comprise multiple stakeholders with diverse views on development and with varying degrees of influence over decision-making.

Researchers have observed that multi-stakeholder conflicts, complexity and uncertainty have emerged and persisted as important issues requiring managerial

responses to protected area management (Plummer & Fennell, 2009). This realization has given rise to the prospect of adaptive co-management as an alternative approach to protected area management for sustainable tourism (Bown et al., 2013; Plummer & Fennell, 2009).

2.8.1 Adaptive co-management and participatory governance

Adaptive management has grown into an established field of research and practice (Folke et al., 2005; Roux & Foxcroft, 2011; Willgen & Biggs, 2011; Wintle & Lindenmayer, 2008). Contrary to linear sustainable development models that disregard the complex and dynamic nature of tourism, the complex adaptive systems model takes into account the interrelatedness of economic, ecological and social-cultural issues (Willgen & Biggs, 2011). The complex adaptive systems approach is based on the understanding that all natural, social and economic systems are interdependent, with feedback at many different levels that allow these systems to self-organize, adapt continually and change in an unpredictable manner (Folke, 2006; Gunderson & Holling, 2002; Willgen & Biggs, 2011). The management of protected areas needs to be adaptive to accommodate changing ecological understanding and social values and to deal with unexpected events (Roux & Foxcroft, 2011; Willgen & Biggs 2011; Wintle & Lindenmayer, 2008).

According to Schianetz et al. (2007), an adaptive management approach is based on continuous and collective learning concepts. It integrates research, planning, management and monitoring through a cyclic learning process to better define and achieve objectives (Pollard & du Toit, 2011; Willgen & Biggs, 2011). Adaptive management philosophy is based on the premise that social-ecological systems are complex and therefore adjustments are necessary as understanding improves or as environmental conditions or societal values change (Willgen & Biggs, 2011).

In short, adaptive management is about "learning by doing" and adapting as new understanding emerges. In essence, "it provides a structured way for improving our incomplete understanding through an iterative process of setting objectives, implementing policy decisions and evaluating the implications of their outcomes for future decision-making" (Roux & Foxcroft, 2011, p. 1-5). Within the adaptive

management paradigm, the policies are hypotheses and the management actions are the experiments to test those hypotheses (Folke et al., 2005).

According to Roux and Foxcroft (2011), the increasing recognition of an adaptive management process in protected areas is the consequence of two critical challenges: the existence of social-ecological complexity and the existence of multiple stakeholders with diverse perceptions, values and expectations. The approach acknowledges the complexity of ecosystems and social systems and seeks to address the challenges of accommodating multiple users' claims and interests (Elbakidze et al., 2010). Under these circumstances, management should adopt an ongoing learning and negotiation process where mutual sense-making and adaptation are prioritized (Pahl-Wostl & Hare, 2004).

Keeping in perspective the interconnected nature of the social ecological tourism system and despite the dominant discourse on participation and devolution of power, the incorporation of local needs in decision making and institution-building has been perceived to be fragmented and poorly coordinated (Basurto, 2013; Duit et al., 2010). This limitation can have implications for our ability to deal with challenges posed by dynamic and complex systems (Duit et al., 2010). Models of governance are needed that improve the stakeholders' ability to govern these complex social–ecological systems. Participatory governance that encourages, public private partnerships and stakeholders involvement in information sharing and decision making is considered as a more flexible and responsive governance process able to deal with increasing complexity (Beritell & Laesser, 2007; Kooiman, 2003; Schneider, 1999).

This institutional and organizational diversity and decentralization increases the capacity of governance systems to handle complex systems is well- recognized in contemporary policy discourses (Duit et al., 2010; Speer, 2012). Participatory governance, therefore, facilitates the participation of local people in the policy development process (Andersson & van Laerhoven, 2007,) and involves them in decision-making unlike community based development in which community members participate only in the planning, implementation, and monitoring of a predefined development project (Speer, 2012). Adaptive co-management is a participatory governance model which emphasizes multiple stakeholders' involvement, and context-specific and network-based incremental policymaking for

achieving long-term sustainability in managing fluctuating social–ecological resource systems (Duit et al., 2010).

The term "adaptive co-management" explicitly underlines mutual learning and cooperation between stakeholders such as conservation agencies, researchers and local communities (Armitage et al., 2008; Borrini-Feyerabend et al., 2000; Folke et al., 2005; Roux & Foxcroft, 2011; Ruitenbeek & Cartier, 2001). Adaptive co-management bridges governance and complex systems by bringing together cooperative and adaptive approaches to management (Plummer & Fennell, 2009). Adaptive co-management, therefore, cannot be achieved by acting in isolation. It requires a culture of collaboration between multiple stakeholders through partnerships in order to be effective (Biggs & Rogers, 2003, Larson & Poudyal, 2012). In other words, it requires a governance model that incorporates the iterative learning of adaptive management and the mutual learning of co-management (Roux & Foxcroft, 2011). For adaptive management to be effective, therefore, it requires participatory governance that is strategic (facilitate action with foresight and purpose), adaptive (facilitate learning whilst doing) and participatory (facilitate engagement and empowerment of stakeholders) (Grant et al., 2008).

Roux and Foxcroft (2011) provide a five step process of adaptive management which they group into three interrelated sub-processes, namely adaptive planning, adaptive implementation and adaptive evaluation (Figure 2.5).

The aim of this process is to develop a common vision amongst all stakeholders and to reach agreement on the social, economic, ecological and political contexts of the system to be managed. Similarly, Dredge et al. (2011) give five principles for sustainable local tourism that closely match with Roux and Foxcroft's (2011) five step process shown in Figure 2.5.

To succeed in this process it would require developing a collective roadmap for moving from a current (usually undesirable) reality to a more desirable social-ecological system; developing action plans; allocating resources and implementing the plans; and continuously evaluating and learning through feedback loops (Elbakidze et al., 2010; Roux & Foxcroft, 2011). According to Roux and Foxcroft (2011), stakeholders' inclusion through the facilitation of a constructive dialogue is essential to the success of an adaptive planning process.

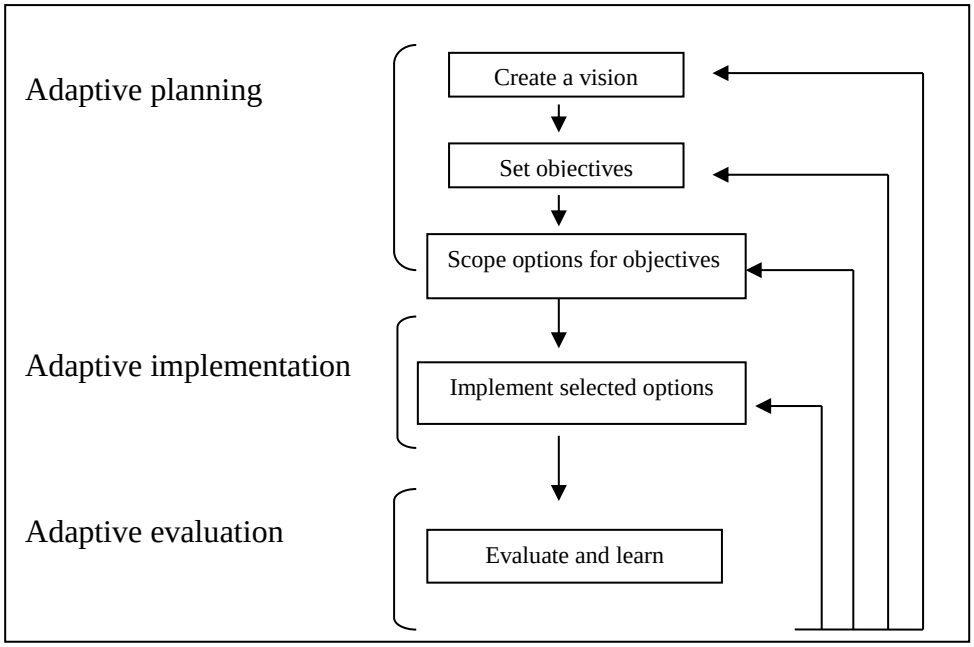

Figure 2.5: Schematic summary of the steps in the strategic adaptive management process
Source: Roux and Foxcroft (2011)

Recent efforts have concentrated on determining the attributes or features of adaptive co-management. These are: inclusive and representative partnership; a governance system that is representative, transparent, and accountable; a program of activities that reflects the values, needs, and management challenges of the partners in the local community; and a commitment to knowledge sharing, capacity building and networking (level of collaboration among stakeholders) (Natural Resources Canada, 2008). Elbakidze et al. (2010) assert that these attributes can be considered as indicators of a multi-stakeholder collaboration approach to assess the ability of partners to collaborate at multiple levels and to plan, prepare for, facilitate and implement adaptation measures. Other researchers synthesize these attributes as: pluralism and communication; shared decision-making and authority; linkages at multiple levels; and learning and adaptation (Armitage et al., 2008; Fennell et al., 2008; Folke et al., 2005; Plummer & Armitage, 2007)

The adaptive capacity of an initiative is enhanced if it reflects and includes partners' needs and values. The adaptive capacity is further reinforced if the process is based on the principles of participatory governance (Currie-Alder, 2005), and capacity building and knowledge production to strengthen the partners and the partnership (Elbakidze et al., 2010). Participatory governance is defined as institutional arrangements that aim to, "facilitate the participation of ordinary citizens

in the public policy process" (Andersson & van Laerhoven, 2007, p. 1090). It is also defined as, "the interactions among structures, processes and traditions that determine how power and responsibilities are exercised, how decisions are taken, and how citizens or other stakeholders have their say" (Graham et al., 2003).

Five key principles of good governance for protected areas, and specific criteria for each of the five principles, are outlined in Figure 2.6.

PRINCIPLES	COMPONENTS	CRITERIA
Legitimacy and Voice	Participation Consensus orientation	• Existence of a supportive democratic and human rights context • Decentralization in decision-making for PAs • Collaborative management in decision-making for PAs • Citizen participation occurring at all levels of decision-making • High levels of trust among various actors
Direction	Strategic vision Understanding of the ecological and social complexities	• Existence of legislative direction • Existence of management plans • Demonstration of effective leadership
Performance	Responsiveness of institutions and processes to stakeholders Effectiveness and efficiency	• Cost effectiveness • Capacity • Coordination • Performance information to the public • Responsiveness • Monitoring and evaluation • Adaptive management • Risk management
Accountability	Accountability to the public and to institutional stakeholders Transparency	• Clarity in the assignment of responsibilities • Public institutions of accountability • Transparency
Fairness	Equity Rule of Law	• Existence of supportive policies, laws and regulations • Fair, impartial and effective enforcement of any PA rules • Fairness in the process for establishing new PAs • Fairness in the management of PAs

Figure 2.6: The five good governance principles. Adapted from Graham et al. (2003)

These are relevant and applicable in a wide range of circumstances (Graham et al., 2003). These principles, to be meaningful, should have practical application. For participatory governance to take place a platform is, therefore, required to facilitate the coordination of planning and management activities by representatives who represent the needs and interests of stakeholders at different levels and building

capacity of the stakeholder groups for good governance (Bellamy & Johnson, 2000; Elbakidze et al., 2010; Graham et al., 2003).

Jones et al. (2011) identified five categories of incentives for improving governance in marine protected areas: participative, legal, interpretative, knowledge, and economic. Participative incentives encourage a wide range of stakeholders to collaborate in planning and ensure broader cooperation. Co-management refers to partnerships between local resource users and governments. Legal incentives provide the legal framework for protected areas, the general and specific use restrictions, and the roles and responsibilities of different parties. Interpretative incentives address the need to communicate the rationale and expected results of a protected area.

Knowledge incentives lead to improvements in scientific information relevant to the protected area, including local and traditional knowledge and independent advice or arbitration in the face of conflicting information. Economic incentives can be particularly important for gaining the support of local stakeholders by creating livelihood opportunities.

2.9 Stakeholders' perceptions

2.9.1 Stakeholders' interest in the environment

Research suggests that the relationship between tourism, livelihood and conservation is dynamic and complex (Njole, 2011; Nyaupane & Poudel, 2011). Equally complex are the environmental and ecological perceptions of the multiple stakeholders driving the process of protected area tourism. Lately, researchers, policy makers and practitioners have recognized the importance of understanding these perceptions. The reason is that environmental issues have become a central concern for policy makers as stakeholders' attitudes and behaviour towards the environment can lead to the success or failure of the sustainable tourism process (Kim et al., 2006; Lewis, 2006). Moreover, the complex interaction of people with the environment makes it crucial to examine the link between environmental issues and people's perceptions of the environment (Gray et al., 2010). Researchers suggest that factors such as perceptions, attitudes and participation towards protected areas are highly correlated, and can affect stakeholders' intent to engage in conservation (Sirivongs & Tsuchiya, 2012).

On the other hand, it is also argued that tourism can empower and provide direct incentives to the local stakeholders and, consequently, help develop positive attitudes toward the environment and conservation (Arnberger et al., 2012; Clements et al., 2013; Nyaupane & Poudel, 2011). Research conducted on linkages among biodiversity, livelihood, and tourism around Chitwan National Park, Nepal revealed that local residents in the highly developed tourism sites were more empowered and more supportive of conservation programs (Nyaupane & Poudel, 2011).

There are numerous studies in the academic literature that assert that environmental attitudes, place attachment, and commitment to the environment and conservation are predictors of environmentally responsible behaviour (Beaumont, 1999; Corral-Verdugo, et al., 2003; Davis et al., 2009; Kerstetter & Bricker, 2009; Lee, 2008). Research also suggests that people with attachments to the natural environment develop a sense of identity with the environment as a result of their attachment, which can lead to pro-environmental behaviour (Halpenny, 2010; Vaske & Kobrin, 2001). Place attachment is defined as a positive or negative relationship that people develop with a place that arises from their complex experience within the place, creating an emotional bond with it (Alam, 2011; Kyle et al., 2006).

It is increasingly being realized that apart from place attachment economic incentives motivate people to become committed to the environment and conservation, particularly in remote protected areas (Campbell et al., 2013; Novelli et al., 2007; Sekhar, 2003). Tourism is recognized as an extremely promising source of finance in protected areas. It is argued that the income associated with tourism in protected areas can change the local communities' perceptions of their environment (Coed et al., 2008; Sirivongs & Tsuchiya, 2012) and can increase their commitment to the environment and conservation. The results from a study conducted by Sekhar (2003) in Sariska Tiger Reserve in India showed a correlation between benefits from wildlife tourism and support for protected area conservation, suggesting that benefits impact people's attitudes towards the environment and conservation.

Similarly, Lee (2008) asserts that sustainable use of the environment can be increased when its users have positive perceptions about conservation and the benefits of tourism. A study on tourism for sustainable local livelihood and the conservation of Lake Manyara National Park revealed that increased environmental conservation awareness and sharing of the economic benefits delivered from tourism

increased local support for the conservation of the area (Njole, 2011). Törn et al. (2008) explored the opinions of local people about nature conservation and the development of tourism which showed that most of the negative attitudes toward nature conservation were influenced by the lack of involvement of local people in the foundation and management of protected areas, the lack of perceived benefits from protected areas, and inadequate interactions between local people and conservation administrators. When local stakeholders had a chance to commit to the planning process they had positive perceptions of and opinions about nature conservation and tourism development (Törn et al., 2008).

Research has indicated the existence of a three-dimensional structure of environmental beliefs (Albrecht et al., 1982; Schultz, 2001; Stern et al., 1995; Thompson & Barton, 1994). Amérigo et al. (2007) also confirmed a three factorial structure of environmental beliefs in their study on the underlying dimensions of environmental beliefs. These were: an anthropocentric dimension based on the instrumental value of the environment for human beings (humans above nature), a biospheric dimension that values the environment for its own sake (natural balance) and, lastly, an ego-bio-centric dimension that values human beings within nature as a whole (limits to growth).

Similarly, it has been empirically established that people's environmental values are likely to form within three different categories, namely importance of self over the environment (egoistic), importance of the environment for people (socio-altruistic), or importance of the environment for itself (bio-centric) (Schultz, 2001; Schwartz, 1994; Schwartz & Bilsky, 1990). People who emphasize the importance and worth of the environment for one's own benefit seem to base their beliefs on egoistic values; those who underscore the importance of the environment and its use and protection for human beings in general base their beliefs on socio-altruistic values; and, lastly, those who call attention to the intrinsic value of the environment and ecosystems base their beliefs on bio-centric values. These values guide their level of interest in conserving the environment.

There are very few studies that have examined the human-environment relationship in developing countries within the alpine protected area tourism context where some of these indigenous communities reside. Research exploring the level of environmental interest among these highly resource-dependent communities and

other stakeholders in remote protected areas in developing countries could help shape future investigations in formulating collaborative stakeholder initiatives for natural resource management through sustainable tourism initiatives.

2.9.2 Stakeholders' understanding of sustainable tourism

In protected area environments, tourism can provoke a multiplicity of negative impacts such as pollution, habitat destruction, disruption of wildlife and deterioration in local communities' quality of life (Yu et al., 2011). Nunkoo and Gursoy (2012) state that sustainable development of tourism in such destinations needs to be closely linked to local community involvement and their livelihoods. Therefore, research on resident attitudes towards tourism and, particularly sustainable tourism, has remained at the forefront among tourism researchers (Andriotis & Vaughan, 2003; Choi & Sirakaya, 2005; Nunkoo & Gursoy, 2012). Dodds (2012) states that sustainable tourism is the responsibility of all stakeholders and there is a need to understand their role in sustainable tourism practices. Numerous studies assert that positive attitudes to tourism are usually accompanied by a higher level of support for tourism development (Nunkoo & Ramkissoon, 2010; Vargas-Sanchez et al., 2009).

Although the importance of diverse stakeholder groups in the planning and management of tourism is underscored in the literature, empirical studies have mainly concentrated on understanding the host community's attitudes toward tourism for successful tourism development (Andereck & Nyaupane, 2011; Andriotis &Vaughan, 2003; Choi & Sirakaya-Turk, 2005; Gursoy et al., 2010; Lee et al., 2010; Nunko & Gursoy, 2012; Yu et al., 2011). Assessing resident attitudes towards tourism has continued to be at the forefront among tourism researchers and tourism planners (Sirakaya-Turk et al., 2008).

There is relatively little research that assesses how multiple stakeholders view and understand sustainable tourism and its policy and management implications for the development of a sustainable tourism management system at the destination level, (Dabphet & Ruhanen, 2012), particularly in protected areas. How these key stakeholders view and understand sustainable tourism can reveal their level of willingness to support sustainable tourism policies or actively participate in a sustainable tourism project (Sirakaya-Turk et al., 2008). Hence, assessing

stakeholders' perceptions of sustainable tourism in protected areas is crucial, as it can aid policy makers and destination developers in the development of strategies, regulations and legislation and increase their level of understanding and willingness to engage in collaborative sustainable tourism management.

Recognizing the paucity of research on stakeholders' understanding of sustainable tourism, the main purpose of this study is to investigate how various stakeholder groups in a protected area tourism destination interpret sustainable tourism and how this understanding can provide information to protected area planners and policy makers to enable them to make informed decisions on implementing sustainable tourism for biodiversity conservation and livelihood improvement. Therefore, it examines multiple stakeholders' understanding and responsiveness towards tourism.

Ruhanen (2008), in her study examining the transfer of knowledge regarding sustainability to tourism destination stakeholders, notes that lack of understanding regarding sustainability and how to implement it in practice have resulted in tokenistic references to sustainable tourism development objectives. According to research findings (De Lopez, 2001; Reed et al., 2009), the development of both interest and capacity can transform the stakeholders from "crowd" (low interest, low influence) to "key players" (high interest, high influence).

Factors such as the interest of the stakeholders in the environment, their understanding about sustainable tourism management and their capacity to form collaborative structures are the key elements that determine the effectiveness of a collaborative process. There are numerous research studies that consider these factors crucial for collaboration to thrive and result in sustainable tourism management (Aref et al., 2010; Aref & Redzuan, 2009; Ladkin & Bertramini, 2002; Ruhanen, 2008; Reed et al., 2009; Schianetz et al., 2007). Such studies can be of importance to local decision makers and tourism developers as they establish a basis for appropriate policy and management strategies (Turk et al., 2009).

There is, therefore, a need to assess the interest, understanding and capacity of multiple stakeholders for environmental and sustainable tourism initiatives to determine how these factors affect their intention and willingness to engage in sustainable tourism development and whether the interest, understanding and

capacity assists the stakeholders to actually engage in sustainable tourism practices in protected areas.

2.9.3 Stakeholders' capacity for sustainable tourism

As in other development sectors, capacity development has become one of the central issues in the debates surrounding sustainable tourism development (Aref, 2011; Aref et al, 2009; Barker, 2005; Erkus-Ozturk & Eraydin, 2010). The research in community development reveals that there is a strong link between capacity development and community participation (Erkus-Ozturk & Eraydin, 2010; Lusthaus et al., 1999; Mog, 2004).

Although capacity development is viewed as synonymous with community development, there is a general consensus that words like "capacity" and "capacity building" or "capacity development" are ambiguous with no specific meaning and are complex and difficult to grasp and operationalize (Aref et al., 2009; Lavergne & Saxby1, 2001). There is little clarity about the meaning of community capacity and capacity building in practice (Chaskin, 2001; McNeil & Woolcock, 2008). There are many viewpoints of capacity and there is a wide array of concepts that are linked to the term. The concept of capacity development in the development sector is, therefore, fraught with ambiguity and abstraction, as different definitions of capacity reflect different concepts with no clear sense of their interrelationships (Aref et al., 2009). With all its ambiguity, community capacity building in tourism research is considered important for improving the process of tourism development and enhancing its benefits for local communities.

Development researchers have documented capacity in different contexts and different scenarios with different dimensions and characteristics. For instance, Kwan et al. (2003) categorize community capacity building into three major contexts: individual, organizational and community levels. Capacity at the individual level includes skill, knowledge and a sense of community. At the organizational level, capacity is associated with community organization, external support, resource mobilization and community leadership; and at the community level, capacity is related to community factors, such as local participation, community power in decision-making and appropriate community structure.

Chaskin (2001) identifies three dimensions of community capacity. The first dimension is its four fundamental characteristics, including a sense of community, a level of commitment, the ability to solve problems, and access to resources. The second dimension is defined as the levels of social agency including individuals, organizations, and networks. The third dimension is the ability to perform particular functions such as building local capacity for planning and governance or for informing, organizing and mobilizing residents toward collective action.

Some tourism researchers relate the concept of capacity to the creation of opportunities for local people to take part in the decision-making process (Barker, 2005; Clancy, 1999; Moscardo, 2008; Timothy, 1999; Tosun, 1998). Jones and Burgess (2005) exemplify these opportunities as partnership capacity. They define it as sharing of power and the promotion of mutual trust, confidence and cooperation. Other researchers add aspects of sense of ownership and sense of community to the list of capacity dimensions (Barker, 2005; Chaskin, 2001; Kwan et al., 2003).

Other factors attributed to capacity are skills and knowledge (Aref et al., 2009; Barker, 2005; Bushell & Eagles, 2007; Frank & Smith, 1999; Hunt, 2005; Moscardo, 2008). The literature on sustainable tourism management emphasizes the need for capacity development in integrated approaches, participatory policy formulation, good communication, strategic planning, and facilitation, problem-solving and decision-making skills (Aref, 2011; Aref et al., 2009; Caffyn & Jobbins, 2003; Galtung, 1980). Tourism researchers also characterize factors such as information and awareness as part of capacity (Aref, 2011; Ebbesen et al., 2004; Sharma, 2004; Steven & Jennifer, 2002). Frank and Smith (1999) add team-building, research, evaluation, and management and development skills to the list of factors related to capacity.

Although capacity development and community participation have been discussed in the literature, research concerning the host community‘s own views on their capacity to become involved in tourism and its social and economic effects remains a gap in academic understanding.

This research assesses the capacity needs of local stakeholders residing in the buffer zone of CKNP for sustainable tourism and considers their implications on sustainable tourism development. The aim is to establish whether the different components of capacity are the key factors that influence sustainable tourism. In this

way, an assessment of stakeholders' perceptions about their capacity for sustainable tourism development is an important step in identifying barriers in stakeholders' ability to reach the goal of sustainable tourism.

2.9.3.1 Proposed typology for capacity

Previous studies have highlighted the factors that influence community capacity (Aref et al., 2010; Aref, 2011; Barker, 2005; Caffyn & Jobbins, 2003; Dredge, 2006b; Erkus-Ozturk & Eraydın, 2010). However, the presentation of these factors has been rather fragmented. According to the researcher's knowledge there is no typology developed as yet that shows capacity on a continuum. Also capacity has not been represented as a matrix that consolidates it into its constituent dimensions and aspects that represent each dimension. However, there are typologies that have been proposed in development research for participation and co-management, the two concepts that are closely related to capacity.

Arnstein (1969) developed a typology of different levels of participation on a ladder with each rung corresponding to the extent of citizens' participation. The bottom rungs of the ladder reflect "non-participation" and progress to levels of "tokenism" that allows the citizens to hear and to have a voice and to advise but lack the power and right to decide. Further up the ladder are levels with increasing degrees of decision-making where citizens enter into a partnership that enables them to negotiate and engage in trade-offs. The topmost rungs reflect citizen control with full decision-making power.

A similar typology was developed by Hart (1992) for youth, showing their participation at different levels with different rungs showing an incremental increase from the lowest involvement having very little influence on decisions to the highest illustrating true involvement. Later, Pretty and Hine's (1999) typology of community participation differentiated participatory processes according to the level of power agencies devolved in participants. It ranged from "manipulative participation" with no power or decision-making ability to "interactive participation" with groups taking control over decisions and "self-mobilization" with independent collective action. Similarly, Borrini-Feyerabend's (2007) continuum of co-management portrays the transition of governance from command and control to shared governance or co-management.

The researcher integrates the two ends of community capacity continuum with community participation continuum, namely the factors influencing community capacity (enablers) and level of participation (outcomes). According to the community capacity model, awareness and information, knowledge and skills, and resources and opportunities are the six characteristics of community capacity building. These six characteristics are essential for capacity building, and the level of participation depends on the level of capacity gained.

This research attempts to develop a typology for capacity that shows different levels of capacity on a continuum from low to high, as shown in Figure 2.7. It also builds a dimensional matrix of capacity and further breaks down each dimension into its constituent indicators and characteristics.

The proposed typology divides the capacity continuum into six levels, starting from awareness and information on the low end of the continuum, moving higher to knowledge and skills and finally to resources and opportunities at the high end (Figure 2.7). The continuum reflects the transition of stakeholders from one pattern of behaviour to another (Baser & Morgan, 2008). Since social, economic and environmental dimensions of a vibrant system are interrelated, the six components of capacity development are interdependent and, as Morgan (2005) states, derive their existence from their relationships with others.

Awareness and information represent the lowest level of capacity where the community is conscious of the social, economic and environmental concerns and is responsive to exchange of information for mutual benefit, as shown in Figure 2.7. Knowledge and skills development portrays the linear, mechanical, machine building aspect of capacity development (Baser & Morgan, 2008), whereas resources and opportunities focus on the dynamics of social-ecological processes and human behaviour. The concepts of participation and capacity are interrelated; as the level of capacity increases on the continuum so does the level of participation and co-management (Figure 2.7). From this perspective, capacity is as much about opportunities and resources as it is about knowledge and skills. Both are contributors to improving capacity and, therefore, performance.

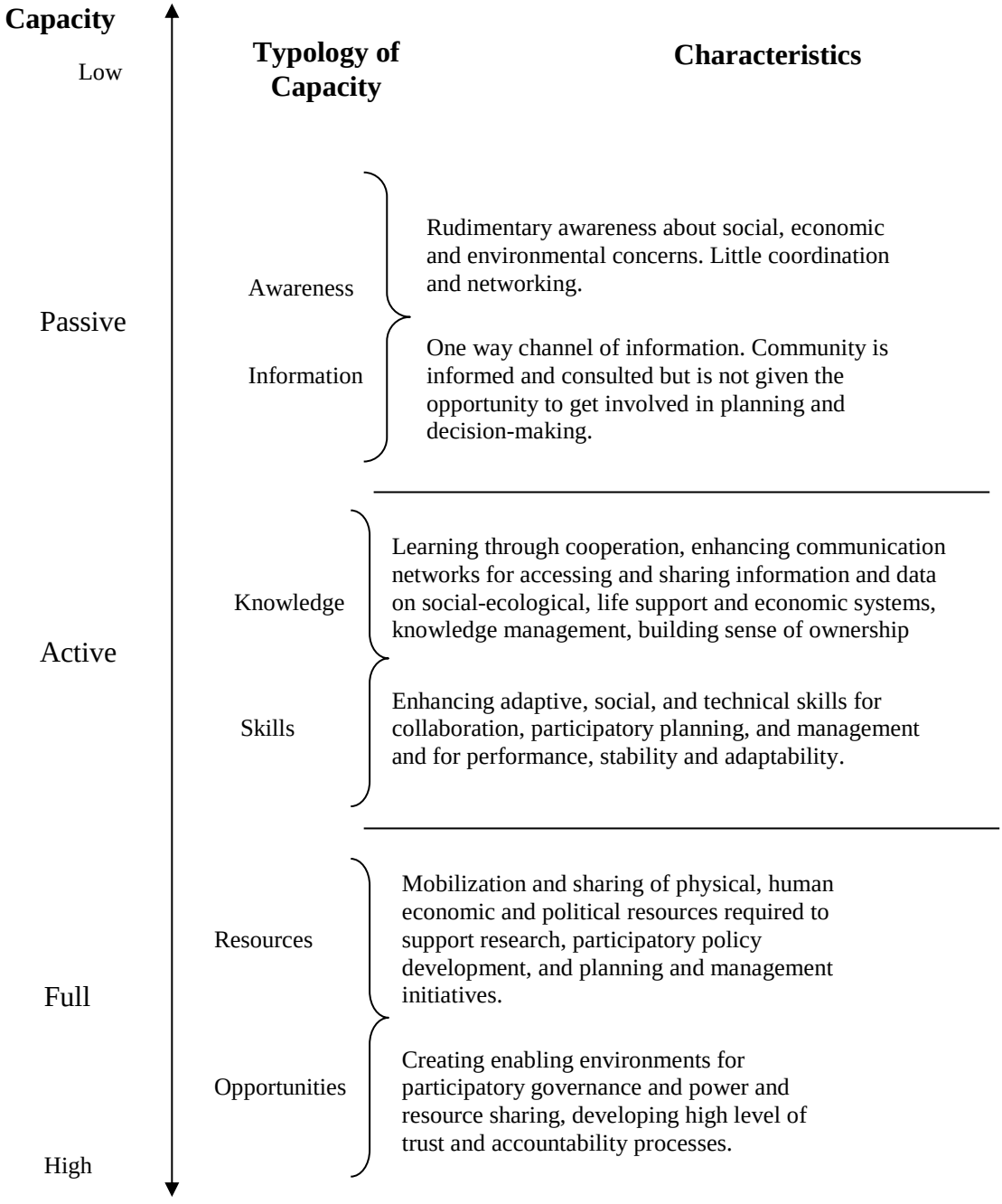

Figure 2.7: A continuum of capacity

Opportunities and resources are put at the highest end of the continuum as they work two ways: First, resources and opportunities are a pre-requisite for developing skills and knowledge. Second, to use these acquired skills and knowledge again requires an enabling environment through the mobilization of resources and creation of opportunities.

Morgan (2005) refers to this capacity at the high end of the continuum as deeper capacity, which cannot be shaped by mechanical interventions such as technical skills and training. According to him, the challenge for a participatory governance system is to develop the deeper capacities, and perhaps the most obvious are access to resources and opportunities. Community capacity building is, therefore, possible through collaboration and a participatory governance system that provides resources and opportunities for information sharing, knowledge generation, skills development and power sharing.

Most of the community capacity development initiatives are taken to empower the local communities and increase their participation for sustainable development. This empowerment is attributed to the six characteristics of capacity, namely awareness and information skills and knowledge, resources and opportunities, as shown in Figure 2.8.

The levels in the continuum in Figure 2.7 reflect these six characteristics of the capacity matrix. Each of these characteristics has a set of components and each component is further broken down into its constituent sub-components. The sub-components could also be used as indicators to measure the level of capacity for each dimension. The sub-components displayed in Figure 2.8 are not exhaustive as more can be added according to the needs and context of the social-ecological system.

Sub-components of capacity such as decision-making, leadership, service delivery, management skills, ability to learn and adapt, and knowledge and understanding, as shown in Figure 2.8, affect the level of participation. Participation, as a result, takes a central role in strengthening the capacity of stakeholders to take part in decision-making (Bown et al., 2013) and to improve systems performance for sustainable development. For instance, lack of resources means lack of capacity which, in turn can affect the level of participation. There is, therefore, a need to develop a better understanding of how the level of capacity influences the level of participation. For instance, does lack of one of the six characteristics of capacity affect the level of participation and at what level should the capacity issue be addressed to increase the participation level?

Characteristics	Components	Sub-components
Awareness & Information	Social-ecological systems	Health, education, traditions and culture, natural resources, sense of community
	Life support systems	Air, water, soil
	Adaptive management	Systems unpredictability, systems resilience,
Knowledge & Skills	Adaptive	Information gathering, research, monitoring, assessing changes over time, ability to learn and adapt
	Social	Networking, collective action, decision-making, problem solving, negotiation, leadership, team building, service delivery, dispute resolution
	Organizational	Resource management, needs assessment, performance appraisals, knowledge management, monitoring, evaluation, financial and administrative management
Resources	Social Economic Environmental	Trust, reciprocity Revenues, equity, trust funds, investments Biotic and A biotic
Opportunities	Collaborative management	Learning, networking, collective action, knowledge sharing, incentives, cooperation, negotiations, conflict resolution, consensus building, resource mobilization
	Participatory governance	Decision-making, professional development, policy and planning, mutually agreed rules and regulations, equitable resource allocation, transparency, accountability

Figure 2.8: Characteristics, components and sub-components of capacity

Moreover, capacity development may be viewed as a process, where the real issue is the management and enhancement of human interactions for improved performance. Since participation and capacity development are interrelated in the collaborative tourism management perspective, it becomes more meaningful if they are considered in an integrated manner. The participatory governance system will be only partly developed if one or more components of capacity are missing. The continuum of capacity, therefore, depends critically on constant learning and adaptation to be effective.

2.10 A conceptual framework for a collaborative sustainable tourism management system in protected areas

Keeping in view the above discourse, a conceptual framework is presented that is constructed around the concept that tourism in protected areas needs to be

viewed as not just a tourist destination but as a social-ecological system (Resilience Alliance, 2010; Schianetz & Kavanagh, 2008). Protected area tourism management issues have to be visualized not just as ecological or social issues, but as multiple integrated systems with interactions at social, economic, ecological, and institutional levels (Schianetz & Kavanagh, 2008).

The proposed framework depicts four stages that are important in attaining sustainable tourism management objectives, as shown in Figure 2.9. The input level places emphasis on enhancing stakeholders' level of interest, their understanding of a shared vision and building their capacity to become involved in collaborative sustainable tourism. As Wilcox (2003) suggests, people care about what they are interested in and become committed when they feel they can achieve something.

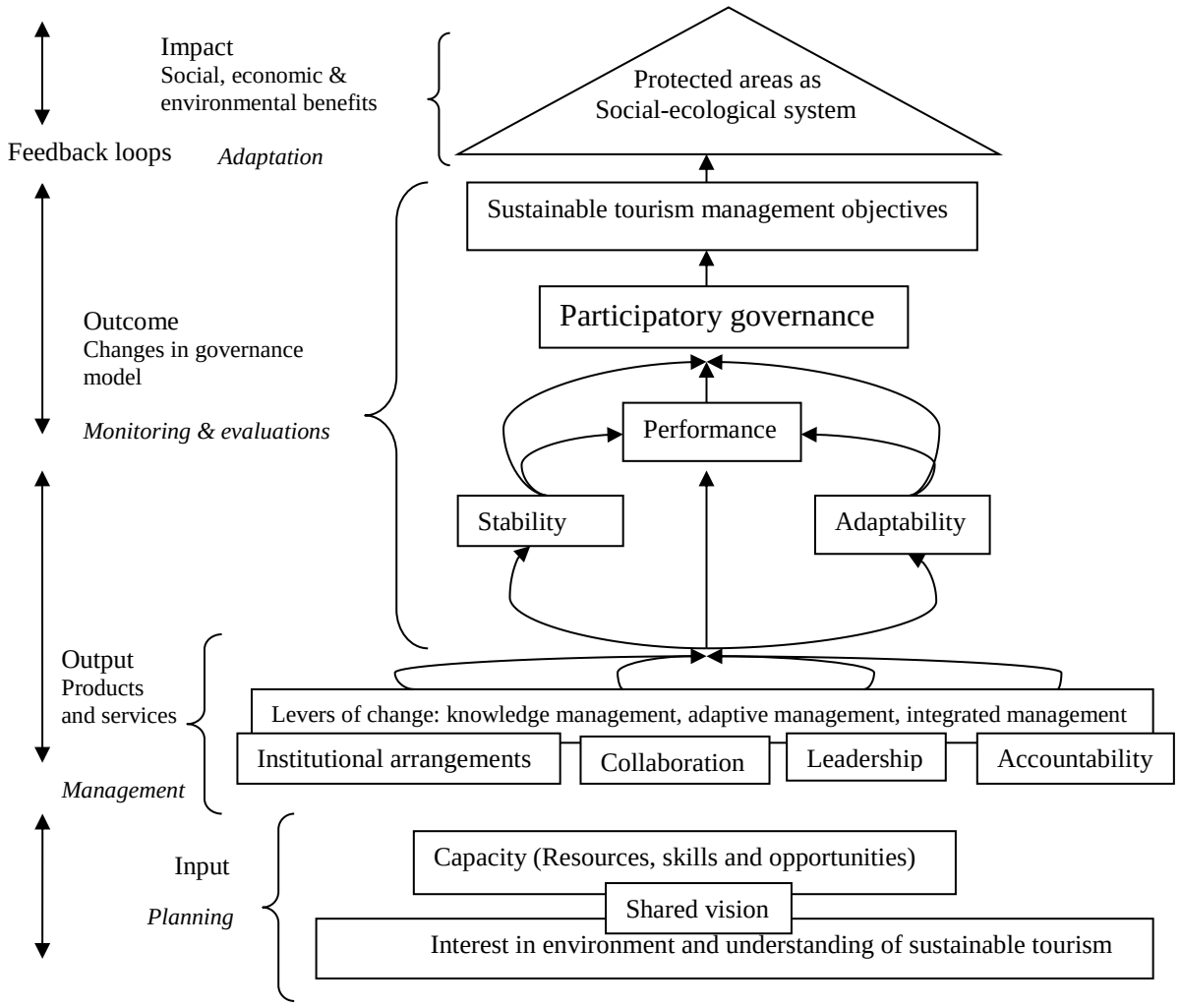

Figure 2.9: Conceptual framework for sustainable tourism. This model is inspired by the logical framework for capacity (UNDP, 2010)

Before any planning takes place it is important to assess the interest, understanding and capacity of the stakeholders and their intention to become involved in collaborative sustainable tourism management and initiate interest-based negotiations to evolve a shared vision for sustainable tourism. Wilcox (2003) asserts that the power of stakeholders depends on who has information (interest and understanding) and money, confidence and skills (capacity). He further suggests that it is unrealistic to expect stakeholders to suddenly develop the capability to make complex decisions and become involved in major projects. They need training and opportunity to learn formally and informally and to develop confidence and trust in each other.

Surveying the interest, understanding and capacity of stakeholders in conservation and tourism in the planning stage can assist in determining their receptivity to collaborative sustainable tourism management and making a transition to the management stage (Output level). It involves building a network of support for participation and developing a collaborative integrated sustainable tourism management system at systems level (social, economic and environmental) and organizational level (protected area authorities, tourism agencies and local communities).

The participatory governance model (Outcome level) suggests multi-stakeholder partnerships in tourism planning and management in protected areas. These include internal stakeholders, such as community groups, the protected area authority and tourism enterprises, and external stakeholders, such as policy makers and donor agencies, for adaptive changes recommended on the basis of changing perceptions and needs of the system.

The conceptual framework shown in Figure 2.9 presents a flow of how improvements in the social-ecological system – *the Impact level* – are affected by changes in the governance model (policy level changes) – *the Outcome level* – which in turn are affected by the products and services produced from management actions (management level changes) – *the Output level*. Interest, understanding, resources, skills and capacity are the inputs needed to generate the outputs (Planning level). The conceptual framework points towards the importance of concepts such as partnerships, collaboration and empowerment for achieving a shared vision and

collaborative institutional arrangements; however, it needs to be supported by a set of effective tools in order to bridge the gap between theory and practice.

To operationalize such a framework requires some preconditions. These are:

1. Effective coordination and open communication among the stakeholders.
2. Establishing a strong joint management resilient system that allows for transparent and accountable performance and financial management through institutional capacity building.
3. Evolving a continuous culture of collective learning through information gathering and sharing among the collaborative partners.
4. Developing a strong mechanism interlinking external stakeholders with internal stakeholders for iterative policy and management adaptation.

The conceptual framework assumes that such preconditions will only be met if the stakeholders have the interest and understanding and are empowered through capacity building to engage in a collaborative sustainable tourism management system. One fact that needs to be acknowledged is that integrated sustainable tourism management is a lengthy iterative process that requires time, energy, resources and, most of all, commitment and willingness of all stakeholders.

2.11 Conclusion

This chapter emphasized the need to acknowledge the protected area tourism system as a complex social-ecological system, where the action of stakeholders plays an important role in changing the systems dynamics. There are numerous research studies that emphasize the importance of local communities in tourism development (Guerrero et al., 2013; Richards & Hall, 2000; Wilson et al., 2001; Zhang et al., 2013). Generally, the community seems to be on the receiving end, rather than as enablers with equal and meaningful participation and a strategic role in policy formulation and decision-making. Moreover, there is very little empirical research that studies multiple stakeholders for their perceptions about sustainable tourism (Hardy et al., 2002; Hardy, 2002) and how these influence the development of a collaborative management system that integrates conservation and livelihood development with tourism development.

The strategic importance of all the tourism stakeholders together is, therefore, rarely acknowledged in the tourism literature on protected areas. For instance, perceptions of multiple stakeholders linking the environment, sustainable tourism and livelihoods issues which influence and impact on the system have been given little attention in research . Identification of barriers and opportunities as perceived by these multiple stakeholder groups is an emerging area of research that needs to be explored. This research attempts to address this gap in knowledge by bringing these stakeholder groups to the centre of the stage in tourism research.

There is extensive literature on good governance that generally focuses on and emphasizes the need for local communities' participation and consultation in tourism policy formulation, but omits other key tourism stakeholders. This research attempts to examine the significance of "participatory governance" in protected areas from the view point of key protected area tourism stakeholders, a critical but rarely researched part of tourism governance (Zahra, 2011). It focuses on participatory governance to guide tourism in alpine protected areas.

The research proposes a fundamental change in the tourism system that shifts the role of government authorities, who are the key drivers of protected area tourism, from providers to enablers, a role where protected area authorities, local communities, tourism enterprises and tourists steer the process of sustainable tourism together as drivers of change rather than assuming positions of power and control to further self-interest.

It argues the case for tourism to be considered in a new theoretical framework that integrates complex systems theory with collaboration and stakeholder theories to achieve greater understanding of the complexities and interrelationships involved in the protected area tourism system. Therefore, participatory governance under collaborative partnerships among stakeholders can provide a means to translate these theoretical perspectives into practical redirection towards achieving goals such as social, environmental and economic sustainability, and merits further research.

CHAPTER THREE

The Study Area

3.1 Introduction

The aim of this chapter is to acquaint the readers with Central Karakoram National Park (CKNP) where the research was conducted. At the outset it must be acknowledged that there were a number of limitations the researcher encountered while conducting the research. For instance, there were constraints in developing background information on tourism for research in CKNP. The reasons were the fragmented and scattered nature of information, the culture of not sharing information, the reluctance of organizational heads to give interviews, unreliable and contradictory data, and the scarcity of empirical research in tourism in Gilgit-Baltistan (the province in Pakistan where CKNP is located).

Considering the dearth of tourism and protected area information on Gilgit-Baltistan generally and CKNP specifically, and to understand the dynamics present within CKNP, a case study approach was deemed very suitable. It helped in generating information and data required to answer the research questions (Huberman & Miles, 2002). CKNP was selected as a case study for this research as it is a typical alpine protected area located in the highest mountain system in the world. Like other alpine protected areas, CKNP is characterized by indigenous populations, a remote location, and a fragile resource base. Furthermore, CKNP is a sensitive social-ecological system that is fragile, complex, and symbolizes mountain communities' economic and social vulnerability (Amatya et al., 2010; Salerno et al., 2010). A majority of these buffer zone communities directly or indirectly depend on tourism to sustain their livelihoods.

While deciding on the protected area for the research the main justification for selecting CKNP was the interest of the protected area authorities. Keeping in view the failure of previous exclusionist management model adopted for the national parks in Gilgit-Baltistan, the protected area authorities are attempting to bring a change from an exclusionary to a more inclusive management model for CKNP. A consortium of non-governmental international organizations is supporting CKNP to

adopt an integrated protected area management model. As compared to other protected areas in Gilgit-Baltistan, CKNP, therefore, presented a suitable case to study the perceptions of different stakeholders towards an integrated sustainable tourism management system.

The CKNP provided a suitable case to identify potentially important constructs (e.g. interest, understanding, capacity, governance and stakeholders' collaboration) from the literature on sustainable development and tourism and to measure these in the interview protocol and questionnaires and on which to ground the emergent theory (Huberman & Miles, 2002).

The chapter is divided into five sections. Following the introduction in Section 3.1, Section 3.2 details the geographic location and ecological and touristic significance of the research site. A brief history of CKNP and its management is provided in section 3.3. Section 3.4 illustrates the challenges confronting tourism in CKNP. Finally, the chapter concludes with section 3.5 which discusses tourism development in Gilgit-Baltistan and the status of tourism and policy and management initiatives related to tourism in CKNP.

3.2 The Central Karakoram National Park

This research focuses on Central Karakoram National Park (CKNP), an alpine protected area that depicts a complex system comprising a diversity of interdependent environmental, social and economic sub-systems. In recognition of international pressure for keeping aside representative areas for biodiversity conservation, CKNP was politically declared as a protected area in 1993 (WWF-Pakistan, 2011b). CKNP is located in Gilgit-Baltistan, a province of Pakistan comprising an area of 72,496 sq km (Hussain, 2012).

Surrounded by three prominent mountain ranges of Karakoram, Himalaya and the Hindukush, it represents a unique geographical location in the world. As shown in Figure 3.1, CKNP falls into the administrative districts of Gilgit, Skardu, and Ghanchy, and extends from 35°N to 36.5°N Latitude and from 74°E to 77°E Longitude. It shares international boundaries with India to the east and China to the north.

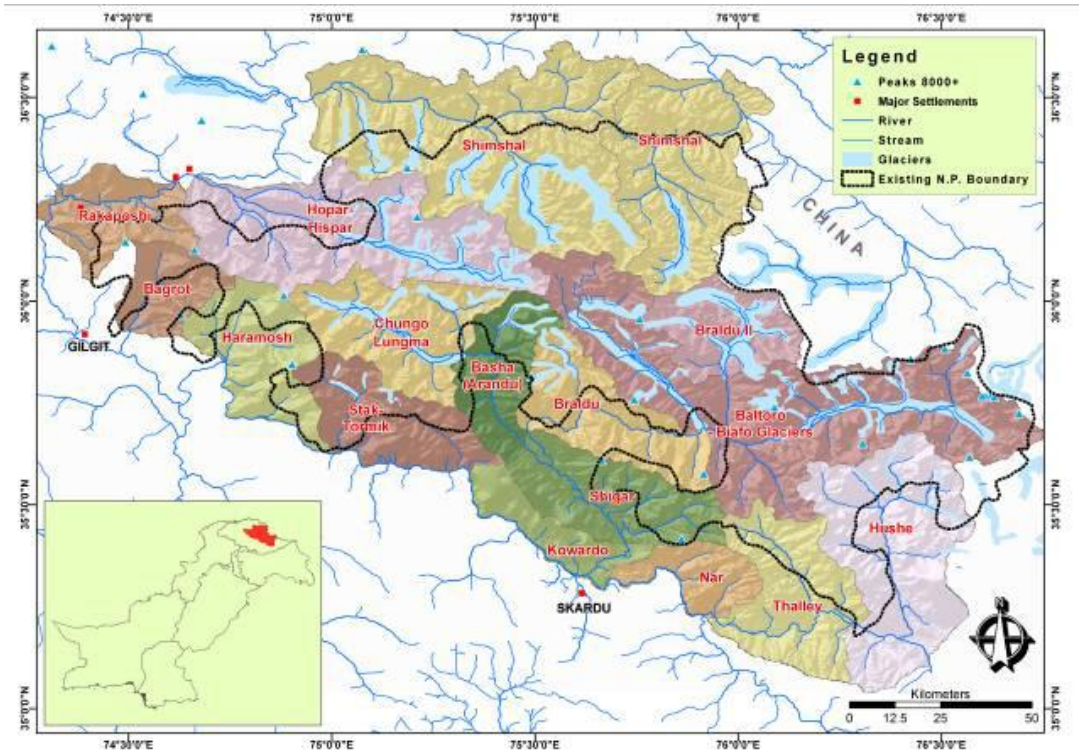

Figure 3.1: Map of Central Karakoram National Park (WWF-Pakistan, 2009)

The insert in Figure 3.1 is a map of Pakistan. The area highlighted in red indicates the position of CKNP on the map. The main valleys and glaciers within the park boundaries are also shown in Figure 3.1. Covering more than 10,000 sq km, plus a 7,500 sq km buffer zone, it is Pakistan's largest national park (WWF-Pakistan, 2007). Like other alpine protected areas, CKNP is characterized by indigenous populations, a remote location, fragile resource base, insufficient revenue and local markets, and inadequate infrastructure.

It is the most spectacular region of Pakistan in terms of its geography and scenic beauty and is a paradise for mountaineers, trekkers and anglers (Zain, 2010). The area ranges from high mountains and large glaciers to rugged valleys and harsh rivers (WWF-Pakistan, 2009). The CKNP represents the largest source of freshwater for Pakistan. The mountain ranges of the area form the headwaters of major rivers, including the mighty Indus and Shyok Rivers. Their tributaries offer some of the finest places for fishing, navigation and water sports (Zain, 2010).

It is located within the most extensive glacial system and has within its boundaries the country's highest peak – the K2 – at 8,611 m as shown in Figure 3.2 (Khan, 2008). It, therefore, represents one of the largest mountain alpine glacial systems outside the polar regions with Siachen (75 km long), Baltoro (57 km)

(Figure 3.3), and Hispur-Biafo (122 km), all originating within the Park boundaries (HKKH, 2007). It is also rich in mineral resources. However, due to crude and unscientific mining methods, most of the gemstones produced from the mines are broken, fractured and destroyed, and these methods cause damage to the ecosystem as well as serious health problems to miners (Rehman et al., 2008).

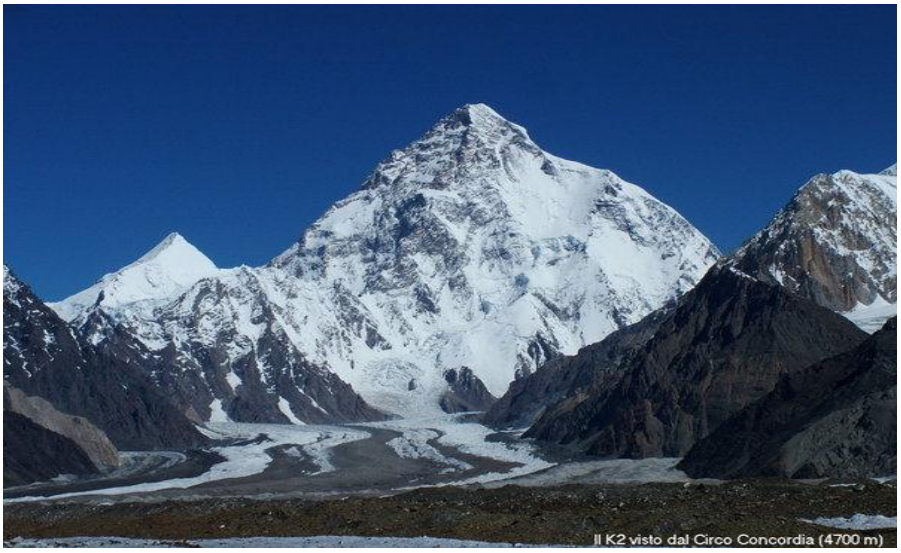

Figure 3.2: View of K2 Peak, Source: http://www.travelblog.org/Photos/4872423 [Retrieved August, 19, 2012)

The dramatic scenery, some of the world's highest mountains and the rich cultural and archaeological heritage make Gilgit-Baltistan one of the most visited tourist destinations in the country (Ahmed, 2003). It therefore offers great tourism opportunities for mountaineers, adventure seekers and nature lovers.

Figure 3.3: View of Gasherbrum Mountains from Boltoro Glacier River. Source: http://www.travelblog.org/Photos/4872423 [Retrieved August 19, 2012]

Figure 3.4: The Snow Leopard.
Source: http://photos.mongabay.com/11/0114snow_leopard.jpg [Retrieved August 19, 2012]

It is a unique protected area with distinctive and diverse habitats of flora and fauna and spectacular landscapes. The CKNP and the ecosystems within it provide habitats for a number of endangered species. It harbors a great variety of fauna, including the Snow Leopard (Figure 3.4), Marco Polo Sheep, Musk Deer, Himalayan Lynx, Blue Sheep, Brown Bear, and Indian Wolf. The majority of the floral and faunal species are endangered and endemic to the Central Karakorum Highlands (WWF-Pakistan, 2008). Its significance for the ungulate species such as Markhor and Himalayan Ibex has made CKNP, with its adjacent Khunjerab National Park (KNP), a hot spot for sustainable trophy hunting for the tourist hunters who visit the area from all over the world to engage in the sport (Mir, 2006).

CKNP comes under the jurisdiction of Forest and Wildlife Department Gilgit-Baltistan. The Park is governed by the Northern Areas Wildlife Preservation Act 1975 (CKNP, 2011). Presently it is being managed by the CKNP Directorate formed under the project titled "Participatory Management and Development of Central Karakoram National Park" that the Government of Pakistan initiated with international development partners. For the purpose of this study the term protected area authorities are used to denote both the Forest and Wildlife Department Gilgit-Baltistan (FWD-GB), the CKNP Directorate and the Tourism Department Gilgit Baltistan.

3.2.1 The buffer zone communities of CKNP

Apart from being an area of rich biodiversity and picturesque beauty that has the potential to become Pakistan's tourism hub, the CKNP is also home to people who live within and around it. A population of approximately100, 000, belonging to nine different ethnic groups, resides in 230 villages included in the buffer zone of the Park (Baig, 2011). The Gilgit-Baltistan region remains one of the most disadvantaged in Pakistan, with very limited access to essential facilities such as health care, education, communication, electricity, and transportation (Ali, 2012). The annual per capita income is estimated at 60% of the national standard of US$1,047 that is US$ 350 (Government of Pakistan, 2009). The majority of the CKNP buffer zone communities directly or indirectly depend on natural resources found in CKNP to sustain their livelihoods.

About 90% of the population is characterized by subsistence farming (CKNP, 2005) and is engaged in mining and livestock herding and the tourism sector, working as high altitude porters, guides and cooks (Baig, 2011; WWF-Pakistan, 2008). This whole population living in the CKNP buffer zone is benefiting directly from the CKNP resources, i.e. high altitude pastures for grazing livestock, firewood and tourism (Baig, 2011). This indicates that there are different stakeholder groups who consider CKNP as a natural resource base for acquiring socio-economic and political benefits.

The pastoral communities in CKNP depend heavily on the surrounding ecosystem for survival (Pathak & Kothari, 2001). There are very few profitable avenues available in the buffer zone of CKNP. The area is generally poor and off-farm employment opportunities are limited. The only real sustainable opportunities for off-farm employment are provided by the tourism industry (Baig, 2011). In places that are too high for any crop to grow people live mainly off livestock that graze on pastures and from money earned by working as porters and cooks for trekking groups.

World Wide Fund for Nature (WWF) and International Union for Conservation of Nature (IUCN) have introduced the concept of community-based conservation by providing trophy hunting as an additional source of income (Mir, 2006). They engage the local communities in a partnership program with the Forest

and Wildlife Department Gilgit-Baltistan, whereby the local communities declare their lands as community controlled hunting areas. The communities impose a self-regulated ban on hunting of wild species such as Markhor and Ibex (Mir, 2012). Trophy hunting can generate up to US$78,000-US$80,000 from hunting permit fees. Nearly 80% of the revenue generated goes to the community that manages the area for conservation and community benefits (Humme, 2004). Communities also earn income working as porters and guides for hunters and trekking expeditions.

3.3 History of management in CKNP

The vision of protected areas spearheaded by international NGOs such as WWF and IUCN based on international conventions exemplifies a highly contradictory and contested process in Gilgit-Baltistan (Khan et al., 2011). The history of park management in Gilgit-Baltistan can be explained by taking the example of Khunjerab National Park (KNP) which lies adjacent to CKNP where the implementation of its management plan is still a source of discontent and resistance among the agro-pastoral local communities due to conflicts related to the community's exclusive rights and herding practices (Khan et al., 2011). The protected area model applied in the case of KNP in the 1970s dissociated nature from society and was criticized by local communities for being exclusionary and ineffective (Butz, 1996; Knudsen, 1999; Mock, 2008).

CKNP was established in 1993 on the recommendation of international conservationists (MacDonald, 1994; Hussain et al., 2010). Learning the lessons from the conflicts and the command and control strategy by the protected area authorities that generated strong resistance from the local communities in the management of the KNP, the government opted to adopt a participatory approach for the management of CKNP (Mock, 2008). The first draft management plan of CKNP developed in 1999 proposed the enhancement of ecotourism and the generation of local economic benefits (Nawaz et al., 2009). However, as shown in Figure 3.5, it excluded the communities residing adjacent to the Park (Nawaz et al., 2009).

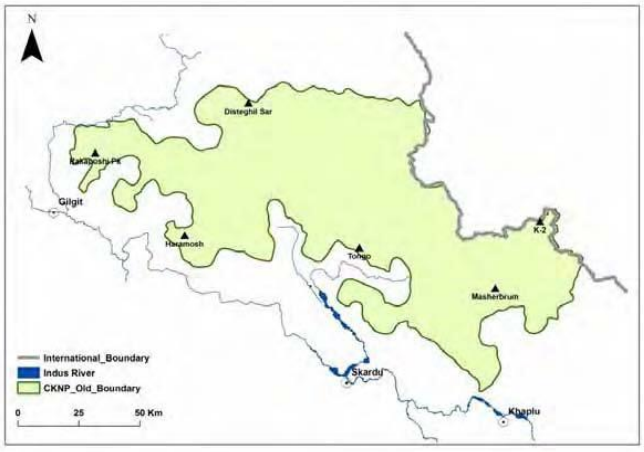

Figure 3.5: Old boundary of CKNP covering an area of 10,432 km^2.
Source: Nawaz et al. (2009)

The second buffer zone management plan developed in 2005 (Hagler Bailly Pakistan, 2005a) proposed that buffer zone communities be involved in the management of the Park, by making appropriate provisions to accommodate communities' traditional rights over pastures, adding another 7,441 km^2 as the buffer zone of the Park (Figure 3.6). To test the effectiveness of new approaches to the protection and management of biodiversity based on the principles of co-management, and realizing the need for a vision shared and accepted by all stakeholders, IUCN under the Hindu Kush-Karakoram-Himalaya Mountain Complex project (HKKH) developed a third draft management plan for CKNP in 2009 (Nawaz et al., 2009). This management plan recognized staging CKNP as an ideal tourism destination for eco, adventure and cultural tourism to generate revenue both for locals and Park's management on a sustainable basis (Hagler Bailly Pakistan, 2010).

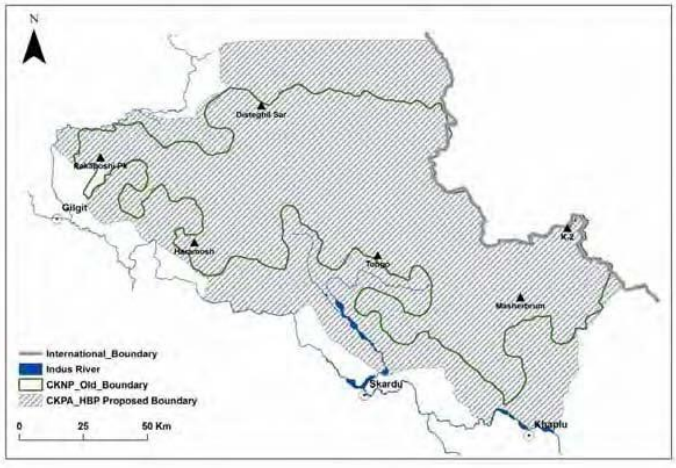

Figure 3.6: Proposed boundary of CKNP extended to include buffer communities, and covering an area of 17,186 km^2. Source: Nawaz et al. (2009).

The three CKNP management plans contained many useful recommendations, including more participation by local communities, sustainable use of resources, and partnerships between the protected area authorities and local communities. However, the management plans did not make explicit how such objectives would be implemented within the current system. Moreover, these management plans have not received approval from the local government. In other words, the Park is still a paper park as it does not have any operational management plan (Hussain et al., 2010).

In 2005 a regional project, "Institutional Consolidation for the Coordinated and Integrated Monitoring of Natural Resources towards Sustainable Development and Environmental Conservation in the Hindu Kush-Karakoram-Himalaya Mountain Complex" (HKKH), was initiated. The three year (2006–2009) HKKH Partnership Project was funded by the Italian Development Cooperation of the Ministry of Foreign Affairs and executed by the IUCN, ICIMOD, Ev-K2-CNR, and Cooperazione e Sviluppo (CESVI) (Amatya et al., 2010; Nawaz et al., 2009).

Realizing the need to safeguard its natural resources, in 2006 the Forest and Wildlife Department Gilgit-Baltistan engaged WWF-Pakistan to develop a proposal for the project titled, "Participatory Management and Development of Central Karakoram National Park" (Nawaz et al., 2009; Khan, 2008). The project was approved in June 2007 by the Gilgit-Baltistan government. This five year initiative was supported by the HKKH Partnership Project, WWF-Pakistan and the Karakoram Trust Project through parallel funding (EV-K2-CNR, 2010-2013). The project objectives specified the protection and management of CKNP through community involvement, enhancement of livelihood opportunities for the buffer zone communities, and staging CKNP as an ideal tourism destination for eco, adventure and cultural tourism (Nawaz et al., 2009).

Through a series of consultative workshops with stakeholders held between 2006 through to 2009, the HKKH project developed consensus on a shared vision for the future of the area, a more flexible system of government protected areas and community conserved areas, and community participation in the management and zoning of the Park (Daconto, 2007). The project is said to be based on integrated and participatory planning, implementation and evaluation approaches to sustainable development that would ensure conservation of the Park's resources and improve

livelihoods of the dependent communities in the buffer zone areas through the promotion and development of eco, adventure and cultural tourism.

With all the above initiatives taken for the inclusion of local communities, it is generally remarked that the protected area network in Pakistan is largely exclusionist and conservative in essence (Khan et al., 2011; Khan & Naqvi, 1999). Despite the rhetoric that the earlier approach of exclusionary protected areas has not worked, a top-down planning approach has largely prevailed so far. In reality, communities are totally unaware of what is going on and about the CKNP planning process, as community consultations have been entirely inadequate (Khan, 2007).

3.4 Challenges for CKNP in Gilgit-Baltistan

CKNP is a sensitive social-ecological system that is fragile, complex, and symbolizes mountain communities' economic and social vulnerability (Amatya et al., 2010; Salerno et al., 2010). The protected area authorities view the local communities' dependence on the Park's resources as a conflict with the ecological goals of CKNP as an IUCN Category II protected area. In such a complex system where communities' livelihoods are at stake due to restrictions on the Park's resources, protected area management needs to minimize mountain communities' economic and social vulnerability. One option that seems most rewarding in terms of local livelihoods and the Park's conservation is the development of sustainable tourism.

International and national NGOs have been a major source of innovative thinking about how CKNP resources and biodiversity should be managed and the environment protected. They have served as a source of alternate management approaches to CKNP specifically focusing on ecotourism that they believe should be encouraged and facilitated (Hagler Bailly Pakistan, 2010; IUCN, 2004). The NGOs are playing a vital role in changing the traditional fine and fence approach to protected area management and a great deal has been done by such organizations for CKNP, but much more remains to be accomplished in the protected area tourism sector (Naureen, 2009). As CKNP is still a 'paper park,' it does not yet exist in the minds of local people as most are not aware of CKNP or what a national park means (Peard, 2007). There is neither a physical indication on the ground nor public awareness to suggest the existence of CKNP (Hussain et al., 2010; Anwar, 2007).

3.4.1 Ecological issues

The reports of various projects undertaken by different NGOs in collaboration with the Gilgit-Baltistan government (HKKH, 2007; WWF-Pakistan, 2011b; WWF-Pakistan, 2012) identify enormous conservation and sustainable development challenges and threats faced by the ecosystem in CKNP. Some of the threats mentioned include: climate change and consequent impacts on the glacier-dominated mountain ecosystem (IUCN, 2007-2011; SDPI, 2012; Zulfiqar, 2012); threats to the survival of many mountain wildlife species because of human activities such as livestock rearing and deforestation; tremendous pressure on the natural resources due to traditional usufructuary rights of the local inhabitants and unsustainable tourism practices; and exploitation of natural resources by tourists, tour operators and buffer zone communities. However, these reports do not support their claims with hard data that show the actual status of these threats. In addition some of the management challenges to CKNP that are mentioned include: inadequate policies and strategies; weak institutional, administrative, planning, and management capacities; inadequate data and information management; poverty; lack of coordination and local human resources capacity; and absence of an integrated management plan (Hagler Bailly Pakistan, 2005b).

All these challenges mentioned are not supported by data that show in which areas the capacity gaps exist and what steps the projects will take in their planning phase to overcome these knowledge gaps. Despite being aware of these gaps, the designs/models of these projects are not responsive to these threats and challenges as these issues have not been addressed through an iterative project planning process.

3.4.2 Policy gaps

There are many policy gaps that have obstructed the development of a sustainable and holistic protected area management model. The protected area legislation does not recognize the rights of the communities living around protected areas (IUCN-Pakistan, 2004; Mock, 2008). In fact, natural resource management laws are mostly out-dated and were designed to promote resource exploitation benefiting government institutions rather than conservation to benefit civil society (Peard, 2007). Regulation is generally negligible and, in the absence of provisions of

enforcement of the legislation and regulations, corruption within the Forest and Wildlife Department Gilgit-Baltistan concerning deforestation is widespread (Ali et al., 2005; Ali et al., 2004). A similar situation is evident in the case of tourism in CKNP as there is no policy or regulatory document available to guide tourism in CKNP.

The absence of these regulations and accountability process has encouraged illegal resource extraction practices benefiting government institutions and development of unregulated tourism rather than conservation (Hagler Bailly Pakistan, 2010). The regulatory authorities themselves have been involved in widespread unchecked deforestation as there are no monitoring and evaluation mechanisms for government accountability (Ali et al., 2005). Illegal hunting is still carried out in the CKNP, sometimes by locals, sometimes by local government officials, and at other times, by Pakistan Army personnel (Hagler Bailly Pakistan, 2010; Naureen, 2009).

Furthermore, in existing environmental legislation the specific environmental enactments are few and insufficient and there are no specific sets of laws and regulations regarding protected areas (Naureen, 2009), let alone protected area tourism. The government's traditionally authoritarian, exclusionary approach to protected area governance, adhering to outdated, ineffective and inappropriate statutory laws that do not provide adequate formal enforcement procedures and tools for implementation, makes these laws ineffective and difficult to enforce (Peard, 2007; Naureen, 2009). Limited financial and technical resources for protected areas have severely curtailed the enforcement of regulations concerning sustainable tourism and natural resource management in protected areas (Naureen, 2009). Illegal hunting by the army and other political leaders in the national parks of Gilgit-Baltistan is one example where laws have been ignored by authoritarian administrators (Naureen, 2009).

3.4.3 Resource use issues

CKNP is facing a number of severe and urgent social-ecological problems. These include biodiversity degradation and environmental pollution, high levels of poverty in the buffer zones, overuse of park resources, and a lack of skilled labor for the tourism industry, as well as poor infrastructure and recreational facilities (FAO,

2009). It is further reported that lack of interest by government departments, the fragmented approach to protected area management, and exclusion of collaborative approaches in protected area policies and laws remain barriers in making these models fully successful and replicable (FAO, 2009).

Cultivated land in Gilgit-Baltistan is private property, whereas forests are the state property, and pastures are village commons (Baig, 2011). Under the Forest Act 1927, concessionary rights are granted to the communities for collective utilization of forests and pasture resources. Since usufructuary or property rights are not documented, the legal status of these common resources sometimes becomes refutable. Livestock is the source of livelihood for about 90% of the human population. Since the alpine pastures are situated in a fragile ecosystem, they are under heavy grazing pressure (Cyan & Latif, 2003).

Baig (2011) in his report on pasture and pastoralism in CKNP states that scientific data on biomass and trends in pasture' conditions to understand resilience and vulnerability of these pastures is not available for any of the CKNP valleys. It further states that no pasture improvement interventions have been undertaken so far in CKNP to maintain the ecological health of the pastures with the participation of stakeholder communities. Rangelands under the Wildlife and Forest Department Gilgit-Baltistan are mostly degraded due to overgrazing and receive no investment or input for maintaining their full potential of productivity (FAO, 2009). The management of protected areas exclusively by public sector agencies has failed to control deforestation or degradation.

It is mentioned that the Park is facing the greatest threat to biodiversity (WWF-Pakistan, 2012) and one of the reasons is fuel wood collection. Despite the importance of this activity, reliable data for Gilgit-Baltistan on fuel wood collection and its impact on natural forests are not available. Few, if any, empirical studies of fuel wood consumption have been conducted to date (Ali et al., 2004). The claim that loss of biodiversity is lower in forests that have been designated as various protected areas under the wildlife laws is not supported by any hard data (FAO, 2009).

The results of a study on deforestation in the Basho Valley of Gilgit-Baltistan, which is part of CKNP, indicated that local fuel wood collection was not the main cause of deforestation. Instead, the estimated deforestation of about 30% during the last three decades was primarily due to commercial harvesting and

mismanagement by the government. According to the study, commercial and illegal harvesting had left the forest in such a depleted state that it could no longer withstand the pressure from local use (Ali et al., 2004). The natural forests in Basho Valley fall under the category of "protected forest". Protected forests are a legal category; they are government property but local communities have all the use rights. Commercial harvesting in these forests is not permitted in principle. However, harvesting on a large scale was carried out under government directives and private people from outside the valleys were also given informal permits to export wood (Ali et al., 2004).

There is tremendous pressure on the natural resources due to traditional usufructuary rights of the local inhabitants. Unsustainable resource use and tourism practices are viewed as the key threats faced by the local ecosystem (Ev-K2-CNR, 2010-2013).

Governmental and non-governmental organizations have been working for over a decade to improve the economic, social and environmental situation of CKNP area. There is no framework that coordinates the different activities and strategies applied by these organizations. There is no legislative framework of reference, as the only law on parks is the Northern Areas Wildlife Preservation Act of 1975.

3.5 Tourism in Gilgit-Baltistan and CKNP

In Gilgit-Baltistan, tourism was almost non-existent at the time of the country's independence from British rule in 1948. However, by the 1970s, tourism had grown due to development of infrastructure and the Karakorum Highway to become one of the largest economic sectors in Gilgit-Baltistan (Zain, 2010). The tourism sector is one of the major contributors to the economy of Gilgit-Baltistan. Though no official statistics are available, it is estimated that more than 50% of international tourists arriving in Pakistan visit Gilgit-Baltistan (Ahmed, 2003; Cook & Butz, 2011).

3.5.1 Tourism impacts

The sustained growth of unregulated tourism in Gilgit-Baltistan, especially in CKNP which is a destination for adventurers, trekkers and mountaineers, has contributed to environmental problems in CKNP (Ahmed, 2003; WWF-Pakistan,

2008). Unrestrained tourism activities coupled with unsustainable exploitation of natural resources by tourists, tour operators and buffer zone communities, have put tremendous pressure on its natural resource base, and pose serious threats to the precious mountain ecosystems of the Park (WWF-Pakistan, 2012).

According to Nawaz et al. (2009), the increase in the number of travellers passing through key tourist spots in the CKNP has increased the pressure on village resources and the local environment. Porters cut wood for cooking and cut young trees for use as walking sticks. They also cause deforestation in wooded areas above the village by stripping the branches of Juniper trees for fuel. Nawaz et al. (2009) further state that there is also evidence of environmental degradation in the alpine grasslands used as camping sites by trekking groups. The most noticeable indications of damage to this area are decreased vegetation and exposed soil caused by the digging of tent platforms. Another significant problem attributed to tourism is the accumulation of human waste and litter in villages, along trails leading out of the villages, in campsites used by trekkers and porters in alpine pastures and on glaciers (Nawaz et al., 2009).

3.5.2 Factors influencing tourism in Gilgit-Baltistan

Although tourism in Gilgit-Baltistan has problems that affect its sustainable development, the industry is young and is not yet over-utilized due to the low numbers of tourists. There are a variety of reasons attached to this low number of tourists.

First, the 9/11 incident in 2001 has adversely affected foreign tourism revenue in Gilgit-Baltistan. The number of international tourists visiting Gilgit-Baltistan has declined over the years and annual revenues from adventure tourism have decreased by about 50% since the 9/11 incident (Ali, 2010). Time series data on tourism were not available for CKNP and Gilgit-Baltistan. According to Hagler Bailly Pakistan (2010), the number of foreign climbers and trekkers dropped significantly by 57% and 92% respectively in 2002 after the incident of September 11, 2001. According to another estimate, on average, less than 10,000 tourists visit Gilgit-Baltistan annually in a region with a population of more than 1.5 million people who largely depend on tourism to sustain their livelihoods (IGBS, 2011).

Although CKNP accounted for about 70% of the tourism revenues generated in Gilgit-Baltistan, the average cumulative yearly growth of tourism dropped to a

mere 0.5% for mountaineers and 0.4% for trekkers in 2009 (Hagler Bailly Pakistan, 2010). Prior to September 11, 2001 an average of 25,000-30,000 tourists were visiting just the two valleys of CKNP, Baltoro and Hushe, over a four-month period each year. This number fell to about 5,000 tourists after September 11, 2001 because of global security concerns (Nawaz et al., 2009). Although there is no research available on the economic and social impacts of decline in tourism on buffer zone communities and local tourism enterprises, it can be reasonably assumed that they are the hardest hit by this decline.

Secondly, tourists enter Pakistan with a valid visitor's visa but they have to obtain a permit and a no objection certificate to enter Gilgit-Baltistan. This has negatively affected the image of Pakistan as a tourism destination and influenced the number of international tourists visiting Gilgit-Baltistan.

Thirdly, there is also a serious issue of funding tourism development programs. Insufficient funding from the federal government for tourism has impacted the tourism and trekking industry of Gilgit-Baltistan (IGBS, 2011). It is also unfortunate that the revenues generated from royalty paid by mountaineering and trekking expeditions (US$10,000 per trekker or climber) is collected by the Ministry of Tourism, which goes to the Government Treasury, and Gilgit-Baltistan does not receive any share in it (Ahmed, 2003; IGBS, 2011). Comparatively, the Leh district of Indian Ladakh with less than 150,000 people attracts more than 70,000 tourists annually, contributing to the overall economy and social development (IGBS, 2011). There were no available data on how and where the revenues generated from tourism are used; especially data on how much of that revenue is spent on conservation and local community capacity development for tourism and resource conservation.

Finally, for Gilgit-Baltistan there are no official tourism statistics available, such as the number of tourists – both foreign and domestic – visiting the area, the average length of stay, and the revenue generated. This inadequacy in data makes it almost impossible to analyse the trends, past and present, in the sector (Ahmed, 2003; Hagler Bailly Pakistan, 2010).

3.5.3 Initiatives for tourism in CKNP

The draft CKNP Management Plan includes a framework for the development of tourism in the CKNP. Two of its principle management objectives

are related to tourism promotion. These are: i) staging CKNP as an ideal tourism destination for eco, adventure and cultural tourism, and ii) promotion and management of tourism in the CKNP to generate revenue for the local communities (Hagler Bailly Pakistan, 2005a).

The ecotourism development plan (Hagler Bailly Pakistan, 2010), which forms part of the protected area management plan developed by the IUCN for CKNP, represents a significant shift away from traditional tourism development. The vision statement for the development of tourism in CKNP declares the Park as: "A place where the traditional owners, i.e., the local communities, and the Forests and Wildlife Department Gilgit-Baltistan staff manage the area together to the highest possible standard to conserve the natural and cultural heritage, and encourage tourists to understand, appreciate, and enjoy the Park" (Hagler Bailly Pakistan, 2005, p, 6-2)

Although the tourism plan gives high priority to expanding the market in the community areas with the objective of providing livelihood support, poverty reduction, and building the stakes of the community in sustainable management of the CKNP, it does not provide any framework on issues such as how the collaborative planning process will take place, under which governance structure the various stakeholders will collaborate to achieve the common goal of ecotourism, what will be the level of their involvement, what mechanisms will be required for the collection, dissemination and sharing of tourism data and information, and the analysis of the financial implications of such a plan. In addition, the action plan does not clarify who would play the leadership role to advance the collaborative tourism process and what will be the contribution and responsibilities of different stakeholder groups within the collaborative management structure. Like the three management plans of CKNP, its tourism management plan has not been operationalized.

Moreover, the Tourism Department Gilgit-Baltistan has the mandate to showcase Gilgit-Baltistan and its unique areas as a highly attractive tourism destination but fails to mention CKNP and other protected areas in Gilgit-Baltistan as prime tourism destinations on its website. Very few tourists are aware of the existence of CKNP. It reflects the isolation of the tourism department from the protected area authorities who are responsible for the national parks. The region abounds in scenic locations but these sites have neither been developed nor projected in the state's tourism promotion campaign (IGBS, 2011).

3.6 Conclusion

This chapter presented an overview of the CKNP within the wider context of Gilgit-Baltistan. The CKNP was viewed as a complex protected area system consisting of interrelated social, ecological and economic values and issues.

The purpose of this research was to use a complex systems perspective to understand issues and factors influencing sustainable tourism development in CKNP. A complex systems perspective enabled the identification of resource use, and tourism and policy issues pertinent to CKNP. It is through these issues that interrelationships between different stakeholder groups emerged that could influence the development of sustainable tourism in CKNP.

CHAPTER FOUR

Methodology

4.1 Introduction

This chapter is concerned with the way in which the data were collected to answer the research questions. An introduction to the methodology was provided in Section 1.8 which this chapter builds upon by further describing the research design and methodology. It elaborates on the issues underlying the choice of data collection techniques and analysis procedures used. Section 4.2 of the chapter illustrates the research approach and design. Section 4.3 describes the selection of the research methodology. The quantitative analysis procedures are dealt with in Section 4.4. Section 4.5 presents the methodology applied for qualitative analysis. The ethical considerations for the research are considered in Section 4.6. Finally the conclusion to the chapter is provided in Section 4.7.

4.2 Research approach and design

To gain insights into the complex tourism system in CKNP, the research opted to study the perceptions of the key stakeholders towards sustainable tourism and its links to conservation and local livelihoods. Since the research studied the perceptions of the respondents in a social-ecological setting during the qualitative analysis, it was more concerned with impressions rather than facts in which reality is represented by objects that are considered real (Saunders et al., 2007), the qualitative research philosophy reflected the principles of interpretive subjective ontology. An understanding of ontological assumptions is important because they embrace the researcher's underlying beliefs and help "define" the choice of methodology (Dobson, 2002) used for data collection.

Unlike the positivist objective position that is undertaken in a value freeway where the assumption is that, ".....the researcher is independent of and neither affects nor is affected by the subject of the research" (Remenyi et al, 1998, p. 33), the research is based on subjectivism, "....in which social phenomena are created from

perceptions and consequent actions of the social actors" (Saunders et al, 2007, p. 108) and interpretivism, which is, "an epistemological position that advocates the necessity to understand differences between humans in their role as social actors" (Saunders et al, 2007, p. 600). Therefore, it was necessary for the researcher to understand the differences among stakeholders' perceptions about the environment and sustainable tourism.

Epistemology, or the philosophy of knowledge (Trochim, 2000), reflects on the nature of the relationship between the knower and what is known (Brand, 2009). Reality is imperfectly perceived by knowledge seekers because of personal biases and because all measurement and observation is imperfect (Trochim, 2000). A researcher's goal to minimize these biases and limitations and to seek objective findings can be achieved through triangulation 'across multiple fallible perspectives' (Trochim, 2000, p. 2). Crucial to this interpretivist epistemology adopted was the challenge to enter the complex world of the diverse research subjects and examine their points of view and perceptions. Such an interpretivist stance, therefore, was highly appropriate for the exploratory research that particularly focused on a complex and unique tourism system in an alpine environment that was dependent on a particular set of circumstances, individuals, and organizations. Figure 4.1 presents the flowchart of the research process.

The research emphasized collecting data through interviews and focus group discussions to increase personal interaction with the respondents, as well as collecting data through a questionnaire. It therefore adopted a phenomenological approach in the qualitative analysis. A phenomenological approach is particularly concerned with understanding behaviour from the participants' own subjective frames of reference (Neville, 2005). Research methods chosen, therefore, interpret events from the perspective of the people who are the subject of the research (Welman & Kruger, 1999). The intent of this research was to explore the perceptions of different stakeholders and to discover how they viewed their interdependence with CKNP in general and tourism in particular.

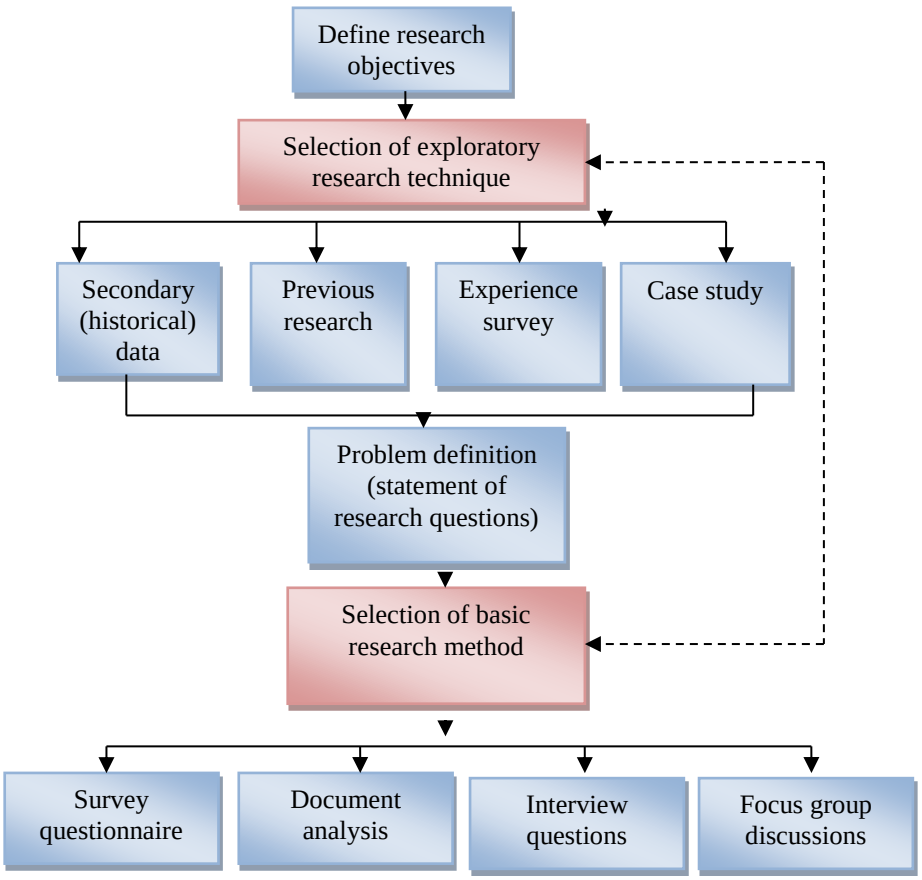

Figure 4.1: Flowchart of research process. Adapted from Zikmund et al. (2000)

In addition, the idea was to acquire a rich understanding of the issues and opinions which may influence sustainable tourism development outcomes for CKNP. A complex systems perspective incorporated all the stakeholders who had a direct or indirect stake in tourism in CKNP and who could influence the development of sustainable tourism within the complex protected area system. Moreover, when findings from independent methods converge, it is not simply a matter of identifying points of agreement; it is also necessary to identify the conditions under which findings are at variance (Fielding & Fielding, 1986). The differences between findings from different knowledge sources was illuminating as it assisted in understanding the complexity that enfolded the entire protected area system.

Consistent with a complex systems framework, a comprehensive understanding of stakeholders' views from their own perspective and how they recognize other stakeholder groups within the complex system and their interconnectedness with social, economic and ecological systems was required. Therefore, an exploratory research design was appropriate. An exploratory study is a

valuable means of finding out what is happening in order to seek new insights, to ask questions and to assess phenomena in a new light (Robson, 2002).

One main concern attached to adopting an exploratory perspective was that the generalizability of the research would be compromised while it aimed to capture the complexity of the tourism system in CKNP, as exploratory research is not typically generalizable to the population at large (Labaree, 2012). However, Saunders et al. (2007) argue that generalizability is not of crucial importance in an ever-changing world. If we accept that circumstances change then some of the value of generalization is lost. However, to avoid this concern of generalizability the research adopted a mixed method approach which has been described as highly appropriate within one study (Ryan & Bernard, 2000; Saunders et al, 2007; Tashakkori & Teddlie, 1998).

Four principal sources were applied to progress this exploratory research (Saunders et al., 2007): i) an extensive review of academic literature and theory and empirical research studies; ii) literature on CKNP and Gilgit-Baltistan, its history and management issues, government and NGO reports, CKNP management plans and other related documents such as tourism policy, protected area legislation, forest policy, documents on international conventions ratified by Pakistan; iii) qualitative analysis which included interviews with a total of 36 respondents including protected area officials, local community members, tourism enterprises and tourists; and iv) quantitative analysis that was based on a survey instrument designed to answer the first three questions of the research outlined in Chapter 1. The results of the quantitative and qualitative analyses were integrated during the interpretation stage, which allowed cross validation of the findings of the study (Aref et al., 2009).

The following section discusses the methods used in the research. The section begins with the rationale for using a mixed methods approach. It then provides an analysis of the quantitative data collection and analysis methods which were used and continues with an outline of the qualitative methods. The chapter concludes with a discussion of the issues surrounding validity and limitations of the research.

4. 3 Research method

As outlined in the previous sections, the research is grounded within the complex systems context, which goes beyond the positive epistemology where a

cause and effect relationship exists between variables based on linear causal thinking (Hesse-Biber & Leavy, 2006). Complexity theory requires a methodology that will allow for a holistic research approach for a greater understanding of the complex system under question (McDonald, 2006). A mixed method design supplements survey-based analysis with qualitative insights obtained from interviews, focus groups, and observation (Leahey, 2007). This research adopted a mixed method approach to gain insights into the complex system under question.

A mixed methods approach has been shown to allow for confirmation or corroboration of the results of each method, examines a phenomenon using multiple perspectives, and compensates for single method weaknesses by providing flexibility and validation of data (McIntosh, 1998; Richins, 1999). Furthermore, mixed methods are comprehensive in nature and add a depth to the results not possible with a single methodology (Richins, 1999). Qualitative data can provide insight from the visitors themselves, and provide reliable and valid data to complement the quantitative data (McIntosh, 1998). Patton (2002) explained that different methods provide a valuable and integrated whole and, although sometimes there is initial conflict, findings inevitably have enhanced credibility.

Consistent with the mixed methods approach, the research applied both qualitative and quantitative research techniques. The use of both quantitative and qualitative methods considers both objective and subjective points of views, interprets results based on values and accepts the limitation that there may be causal relationships but the researcher might not be able to pinpoint them as, “there are multiple explanations to the results of any research study” (Tashakkori & Teddlie, 2003, p 29). It, therefore, required collecting objective and subjective data from different groups of people to create credibility and to obtain reliable results (Creswell, 2009).

There were three reasons for incorporating a mixed methods design. These were: i) Triangulation: It draws together the data collected by different methods in a study to enhance the credibility of the research findings. Triangulation ultimately enriches a study’s conclusions, making them more acceptable to advocates of both qualitative and quantitative methods (Hess-Biber, 2010); ii) Complementarity: It allows the researcher to gain a fuller understanding of the research problem and to clarify a given research result by using both quantitative and qualitative data (Hess-

Biber, 2010). Both complementarity and triangulation are useful "for cross-validation when multiple methods produce comparable data" (Yauch & Steudel, 2003, p. 466); iii). The research questions "fit" well with the mixed methods approach (Hess-Biber, 2010).

Furthermore, qualitative and quantitative methods become more powerful when researchers use them in combination rather than in isolation (Gorard & Taylor, 2004). In this study, document analysis, semi-structured interviews and questionnaire surveys were employed in a triangulated approach for data collection and analysis to incorporate the strengths of these methodologies. The triangulation of these methods in this study is presented in Figure 4.2.

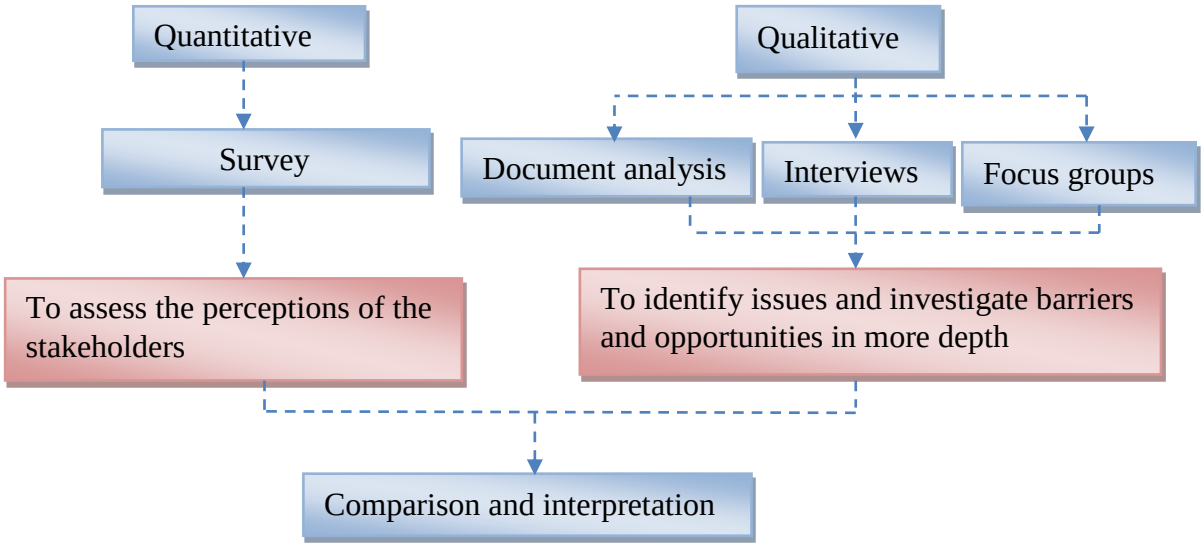

Figure 4.2: A sequential design of the mixed method approach used in the research

A "sequential mixed methods design" was applied. It assisted in finding out more about the target sample obtained from the quantitative analysis. Integrating qualitative and quantitative data is considered the best way to gain a complete understanding of social phenomena (Leahey, 2007). The findings of the quantitative analysis helped in generalizing and validating the qualitative analysis and interpretation, as illustrated in Figure 4.3.

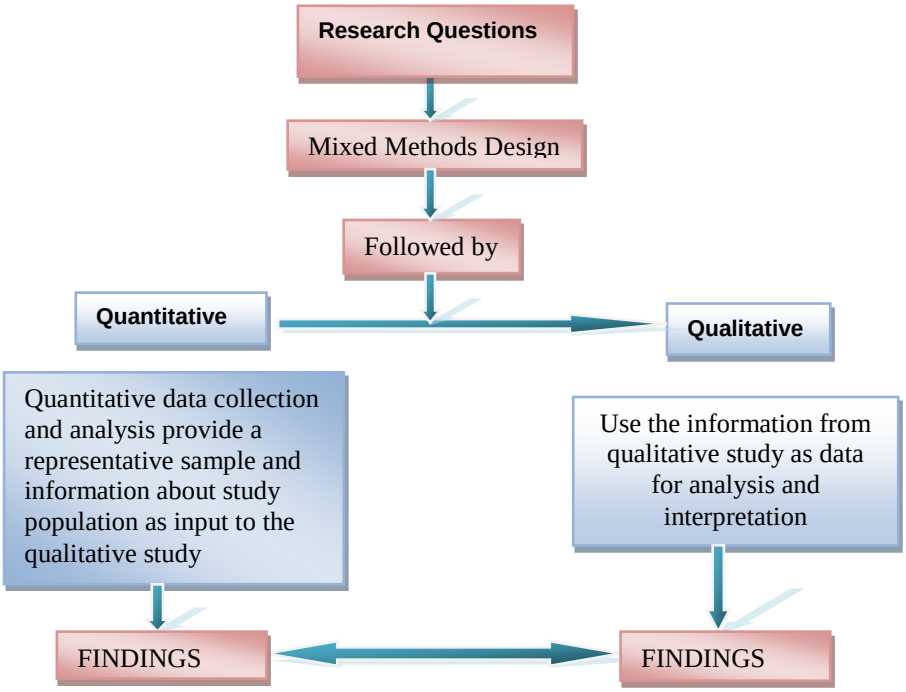

Figure 4.3: Sequential mixed methods design. Adapted from Hess-Biber (2010)

From the quantitative data an overall picture was constructed supported by stakeholders' interest in the CKNP environment, their perceived understanding and capacity for sustainable tourism to facilitate the realization of the research objectives. By contrast, the qualitative data was used to determine the barriers and opportunities in the development of an integrated approach to sustainable tourism management in the Park and how these barriers and opportunities were linked to their interest in the environment and their perceived understanding and capacity for sustainable tourism.

4.4 Quantitative analysis

Survey research is the most widely used quantitative approach in the social science field. It is generally used for exploratory and descriptive research (Saunders et al., 2007). The survey strategy allows the collection of data which can be analyzed quantitatively using descriptive and inferential statistics (Saunders et al., 2007). In quantitative research, non-metric data (also referred to as qualitative data) are typically attributes, characteristics or categories that describe an individual and cannot be quantified (Marczyk et al., 2005). Nominal and ordinal scales are non-metric measurement scales. Ordinal scale is qualitative in nature and measures a

variable in terms of both identity and magnitude. Ordinal data, therefore, do not possess the mathematical properties necessary for sophisticated statistical analyses (Marczyk et al., 2005).

This research applied parametric statistics on ordinal (rank order) scale for quantitative analysis as the data was normally distributed. The quantitative data assessed the assumption whether the three factors, namely the interest, understanding and capacity of stakeholders, influenced the development of sustainable tourism management in the Park.

4.4.1 Sampling procedure

By definition, "a sample is a group selected from a population in some way so as to ensure that, for the characteristics being investigated, the group is typical" (Black, 1993, p. 43). Sampling techniques provide a range of methods to reduce the amount of data by considering only data from a sub-group rather than all possible cases (Saunders et al., 2007). Sampling involves any procedure that draws conclusions based on measurements of a portion of the population (Zikmund et al., 2000). It provides a valuable alternative to a census when it is impracticable to survey the entire population. Researchers argue that sampling makes possible a higher overall accuracy than a census (Henry, 1990; Saunders et al., 2007).

Sampling techniques can be divided into two techniques: probability or representative sampling and non-probability sampling. Experimental hypothesis-testing studies rely on probability random sampling where the purpose is to study causal links (Huberman & Miles, 2002; Saunders et al., 2007). The goal of this sampling process is to obtain accurate statistical evidence on the distribution of variables within the population (Huberman & Miles, 2002). It is the most unbiased sampling method (Muijs, 2004).

It was assumed that stratified random sampling would be used to collect the data, but while in the field a random sampling technique was ruled out as it was not practically possible for a number of reasons. These included limited resources and inability to specify a sampling frame due to the difficult mountainous terrain, insufficient population data and time constraints. Moreover, there were serious logistical difficulties and accessibility issues in reaching all the communities

surrounding the park. Therefore, a truly cross sectional design to provide a probability sample was not possible.

Although non-probability techniques limit field researchers' ability to generalize the findings, they provide sensible alternatives to select cases to answer the research questions and address the research objectives (Chambliss & Schutt, 2012; Newing et al., 2011; Saunders et al., 2007). Especially in exploratory research, a non-probability sample is most appropriate (Schutt, 2006). Moreover, the main emphasis of the research was to explore respondents' views and perceptions on the issue of sustainable tourism in the park and to document specialist knowledge rather than determine the key characteristics of the population (Chambliss & Schutt, 2012).

Therefore, it was not required to define the total population precisely and to make statistically valid inferences to the whole population (Newing et al., 2011). According to Saunders et al. (2007), for research questions and objectives that do not require statistical estimation of the characteristics of the population, non-probability sampling techniques can be used. In exploratory research, non-probability sampling may be the most practical (Saunders et al., 2007).

Four main stakeholder groups were identified as a key target population, namely:

i) Tourism enterprises (tour operators and hotel owners) that access CKNP for business purposes;

ii) Protected area authorities who have management jurisdiction of CKNP (The Forest and Wildlife Department Gilgit-Baltistan, CKNP Directorate, Tourism Department Gilgit-Baltistan and Environmental Protection Agency Gilgit-Baltistan);

iii) Local community members who are dependent on the park for their livelihood; and

iv) Tourists who are engaged in different recreation and adventure activities either in CKNP or outside its boundaries.

Considering the heterogeneous nature of the stakeholder groups, two non-probability sampling techniques were applied to collect the data. Figure 4.4 provides the logical reasoning for selecting the sampling techniques adopted for data collection in this research, namely convenience sampling for local communities and

tourists, and purposive sampling for tourism enterprises and protected area authorities.

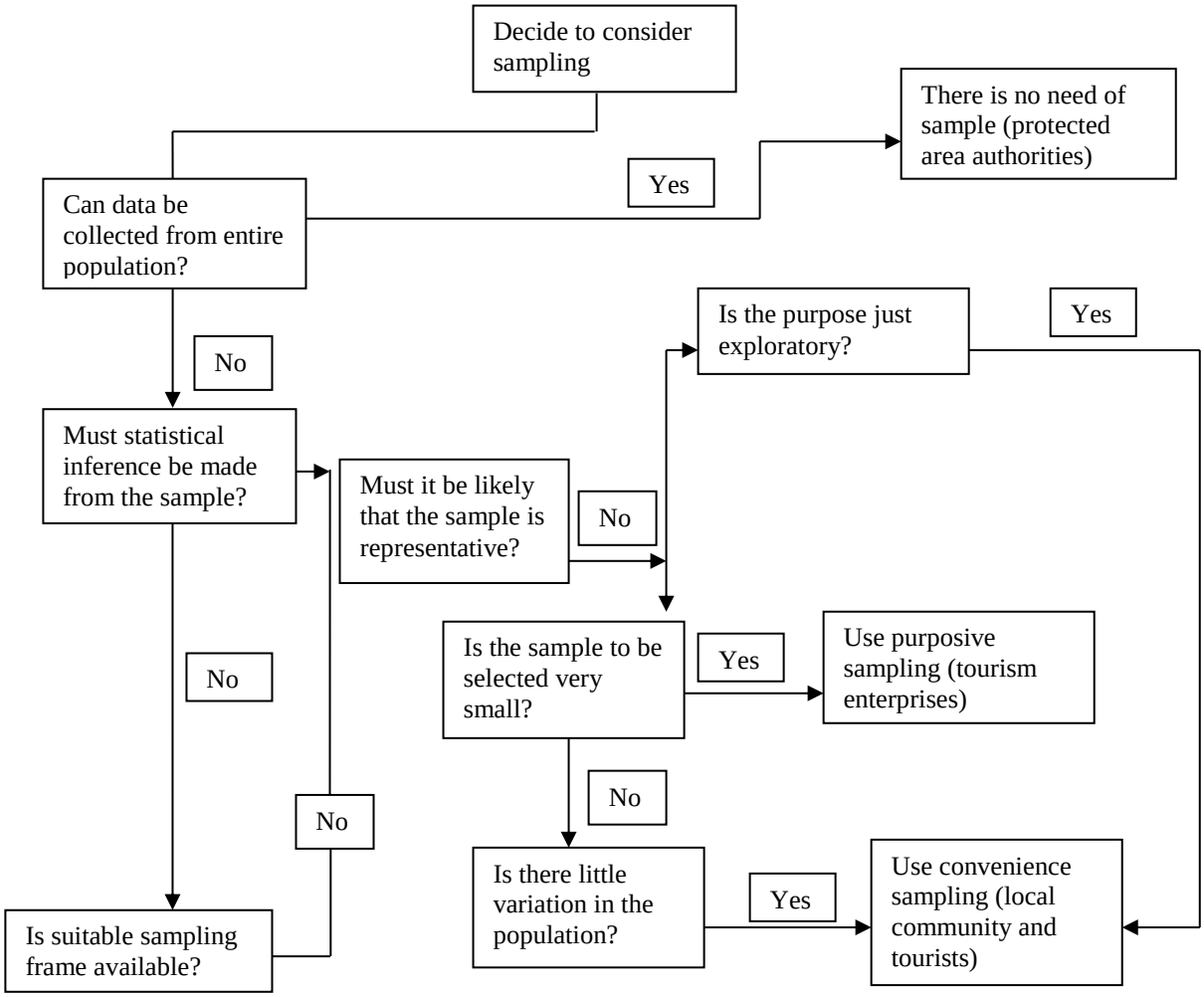

Figure 4.4: Logical reasoning in selecting sampling techniques for data collection. Adapted from (Saunders et al., 2007).

For the local communities and the tourists, convenience sampling was deemed the most appropriate for a number of reasons: to obtain a large number of completed questionnaires quickly and economically; obtaining a sample through random sampling was impractical (Zikmund et al., 2000); and research focused on exploring a new setting to gain some sense of prevailing attitudes and perceptions of the respondents about sustainable tourism. Convenience sampling cases were selected on the basis of accessibility. An on-site convenience survey was conducted in different locations around the Park. About 20-24 community members from each of the eight valleys adjacent to the Park were conveniently selected and included in

the survey. Tourists visiting CKNP were approached directly using a convenience sampling technique.

For protected area authorities where the population of the staff was not more than 50, data was purposively collected from 33 management staff, based on the researcher's judgment about appropriate characteristics required of the sample members to satisfy the specific purpose of the research (Zikmund et al., 2000). Therefore, the stakeholders were selected on the basis of their experience, role and position in the organization and their influence in policy making and implementation of the protected area (Yasarata et al., 2010).

4.4.2 Sampling frame

The research initially included 350 respondents in the sampling frame. In all 320 were approached and contacted for the survey. The location response rate (i.e. percentage of respondents in the sampling frame who were located) was 91%. A total of 300 respondents agreed to answer the questionnaire and 292 completed the entire questionnaire. The completion rate (i.e. percentage of cooperating respondents who completed the survey) was 97%. The total response rate (i.e. the product of all the other rates: .91 x .97 = .88) was 88% (Neuman, 2005).

The number of respondents in each of the four stakeholder groups was: local communities 155 (53%), tourists 62 (21%), protected area authorities 32 (11%) and tourism enterprises 43 (15%). The mean age of the sample was 34.5 years. The sample consisted of 250 (86.3%) male respondents and 40 (13.8%) female respondents. Within the tourists sample 80% were domestic and 20% were international.

Out of these 292 questionnaires, on average, 15% had missing data. The researcher followed a structured process of finding the missing data and then applied an imputation technique to resolve the issue (Hair et al., 2010). Missing values were replaced with the mean value of that variable calculated from all valid responses (Hair et al., 2010).

4.4.3 Survey instrument

Structured surveys are used to make more precise comparisons within and across groups. Such surveys are based on the assumption that if a standard

questionnaire is administered to a group of people, then variations in their answers are more likely caused by differences among them rather than by differences in the questionnaire to which they responded (Ryan & Bernard, 2000). A structured survey instrument was developed to assess the perceptions of the four stakeholder groups. The instrument was designed to measure three variables based on the first three research questions mentioned in Chapter 1. The survey questionnaire assessed the value judgments of the respondents based on what their perceptions were about the environment, sustainable tourism and their capacity to become involved in collaborative tourism management. It therefore comprised three Likert type sub-scales for each of the above variables and a section on socio-demographic data. Researchers recommend the use of a Likert scale in tourism research due to its high validity and reliability (Aref et al., 2009; Dong-Wan & William, 2002; Maddox, 1985; Spector, 1992). Therefore, the sub-scales of 1-5 (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree and 5 = strongly agree) were used to measure the three variables.

The survey instruments with sub-scales for the four groups are attached as Appendix 1. The survey instruments consisted of the following four sections:

Section one: General characteristics of respondents

In this section respondents were asked about their socio-demographic information, such as gender, age, education, occupation. The questions in this section varied according to the stakeholder groups.

Section two: Sub-scale 1. New Ecological Paradigm Scale (NEP)

Interest in the environment was measured using the revised 15 item NEP (Dunlap et al., 2000). The respondents were asked to rate the extent to which they agreed or disagreed with statements on a five point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree and 5 = strongly agree).

Section three: Sub-scale 2. Sustainable Tourism Attitude Scale (SUS-TAS)

Understanding about sustainable tourism was measured using the SUS-TAS. The original SUS-TAS contains 44 items (Choi & Sirakaya-Turk, 2005; Sirakaya-Turk et al., 2008). Given that the tool was designed to measure residents' attitudes in Pakistan, it was necessary to adapt it to the CKNP context. From the original SUS-TAS scale, 21 items were retained and the wording of most of the items was altered

to measure the understanding of the respondents about sustainable tourism. A five point Likert scale anchored on 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree and 5 = strongly agree was used for rating.

Section four: Sub-scales 3 and 4. Capacity of Stakeholders

Since no scale has been developed in the previous research to assess the perceptions of stakeholders about their capacity to engage in sustainable tourism, the researcher developed two new scales, one each for the local communities, Community Capacity for Sustainable Tourism Scale (CCS-ST), and protected area authorities, Protected Area Authorities Capacity for Sustainable Tourism Scale (PAC-ST). The task proved to be quite complex as it was anticipated that each stakeholder group would have different capacity needs in relation to their relative position and stake in sustainable tourism in the Park. Therefore, to resolve this issue each scale was constructed with different items suited to the requirements of each stakeholder group. Tourists and tourism enterprises were not assessed for their capacity to become involved in tourism management and therefore were excluded from this scale.

As the source language of the survey instrument was English the need to translate it was apparent from the outset as the language of the target population was different from the one in which the instrument was designed (Harkness & Schoua-Glusberg, 1998). Translation is the most frequently adopted approach that the majority of researchers see as the most viable option (cf. Guillemin et al., 1993; Van de Vijver, this volume). A decentering approach was used to translate the source language survey instrument (Werner and Campbell, 1970). "Decentering in translation is a technique which begins from a draft questionnaire in the source language in order to produce final questionnaires in two languages (source and target) through a process of paraphrase and translation between source language and target language" (Harkness & Schoua-Glusberg, 1998, p.98).

During the translation each draft question was reformulated and paraphrased with the goal of eliminating culture-specific aspects and simplifying complex sentences into basic, most simple constructions (Werner & Campbell, 1970). Each item was then translated into the target language by a translator specially appointed to do the translation. As the two languages did not offer direct lexical equivalence the efforts during the translation were directed towards obtaining conceptual equivalence

(Birbili, 2000). To gain comparability of meanings was greatly facilitated by the fact that the researcher and the translator were proficient in the target language and had good knowledge of the local culture (Birbili, 2000).

When questionnaires are to be used, another way of eliminating translation-related problems is to pre-test the research instrument in the local culture (Birbili, 2000). The content validity of the items in the survey instrument was first assessed during translations of the scale items from English to Urdu. During translation of the instrument three experts from the tourism and development sectors provided feedback on the content and understandability of each measurement item and commented on the relevance of the items to CKNP. The questionnaire was accordingly refined. The revised scale was discussed with colleagues and was adjusted according to their comments. In the final review, the experts reported that the scale items were suitable for measuring stakeholders' perceptions in the CKNP context. The instrument was pretested for any inaccuracies and biases with a group of 15 individuals belonging to the tourism sector before the actual collection of data.

The researcher conducted the surveys in person with the support of WWF-Pakistan staff over a three month period from June to August 2010 at 10 designated locations within the case study area. Respondents were approached in person and given information and instructions on completing the questionnaire. The plain language statement read to them is exhibited in Appendix 2.

The valleys covered were Bagrot, Haramosh, Hopar-Hispar, Hushe, Rakaposhi, Shigar, Stak-Tormik, and Thalley. The towns of Karimabad, Gilgit and Skardu were also included in the survey. The eight valleys as shown in Figure 4.5 were adjacent to the entry points of CKNP. While the data did not represent all the valleys of CKNP proportionally, it had distributional representation qualities as valleys from each of the four districts, Hunza-Nagar, Gilgit, Skardu and Ghanchy, falling within CKNP were represented. The other two locations included the main cities of Gilgit and Skardu where most of the government, NGOs and tourism enterprises are located.

A researcher from NGO was hired to conduct a second round of surveys in the two main cities of Gilgit and Skardu from September to October 2010 to specifically collect further data from tourists and tourism enterprises. Figure 4.5 shows the valleys covered during the survey.

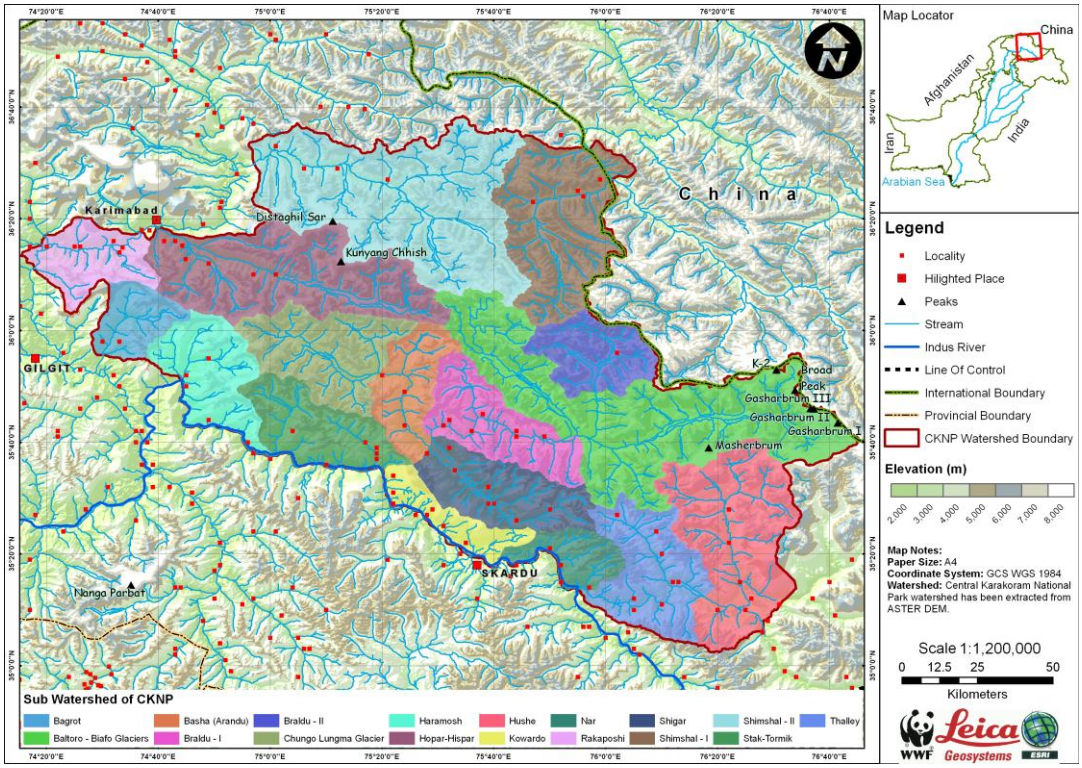

Figure 4.5: 17 watershed valleys of Central Karakoram National Park-Pakistan. Collected with permission from World Wide Fund for Nature Pakistan (Unpublished)

4.4.4 Data analysis tools

Quantitative data were analysed using the Statistical Package for the Social Sciences (SPSS) version 18. The researcher applied descriptive analytical tools, exploratory factor analysis and one-way analysis of variance (ANOVA) to answer the first three research questions mentioned in Chapter 1. One Way between Groups ANOVA is an appropriate statistics tool for comparing two or more independent groups (Morgan et al., 2001). ANOVA can assess the likelihood of these groups being different occurring by chance alone (Saunders et al., 2007). The *F* ratio represents these differences. The low likelihood of any difference between groups occurring by chance alone is represented by a large *F* ratio with a probability of less than 0.05 (Saunders et al., 2007). This is termed statistically significant. Although ANOVA is a parametric statistical technique popularly used to measure continuous scales, it is widely used to measure ordinal scales in social research especially - in the fields of health, education and tourism (Baggett et al., 2008; Carmin et al., 2003; Chen, 2000; Tregunno, 2004).

The data was first entered in Excel. Errors made when coding or entering data into a computer can threaten the validity of measures and cause misleading results (Neuman, 2005). To remove errors in the coding and entering process the data was cleaned by rechecking the categories of all variables for impossible codes. For accurate record-keeping each sample respondent was given an identification number. The responses were then transferred from Excel to SPSS for statistical analysis.

Descriptive statistics usually include means, standard deviations, and frequencies (Anderson et al., 2007). Means and percentages were calculated for each item in the four sub-scales in the survey instrument to identify the trend of the stakeholders' perceptions towards these items. The survey instrument was ranked on a five-point scale ranging from "strongly disagree" to "strongly agree". The levels of interest, understanding and capacity were measured by categorizing the five point sub-scales in three levels. The high level of interest, understanding and capacity was indicated with mean values ranging from 4-5, moderate level with 3 and low level with values ranging from 1-2. Exploratory factor analysis, for the first three research questions, was performed on four sub-scales in the survey questionnaire to determine the number of dimensions in each scale.

The three levels used in the descriptive statistics were not used in the ANOVA analysis. Instead, ANOVA was conducted based on the dimensions which were determined in the exploratory factor analysis for the three sub-scales. The level of interest was assessed on different values that stakeholders attached to the environment and the level of understanding was measured based on the perceptions that the stakeholders had about sustainable tourism. Tukey Post-hoc comparisons were conducted to establish whether there were significant differences among the four stakeholder groups.

One Way between Groups ANOVA was applied to compare mean scores and assess overall differences among the stakeholder groups mentioned in Section 4.4.1 and to determine the differences in their level of interest and understanding. Cronbach's alpha was applied to check the reliability of the four sub-scales used in the survey instrument.

4.4.5 Reliability and validity of quantitative data

The survey questionnaire was validated by tourism experts for its content validity. The survey questionnaire was sent to tourism experts in Pakistan for their review and feedback. Expert advice was also sought from PhD supervisors. The comments and suggestions received from them were incorporated in the survey questionnaire. To ensure the reliability of the instrument, Cronbach's alpha was used. According to Stangor (2011, p. 94) the most common, and the best, index of internal consistency is Cronbach's coefficient alpha, symbolized as α**.** Coefficient alpha, ranges from α = 0.00 (indicating that the measure is entirely erroneous) to α = + 1.00 (indicating that the measure has no error). Stangor (2011) suggests that that the reliability of a commonly used scale should be at least α = .70.

4.5 Qualitative data collection

For the qualitative data, unstructured in-depth phenomenological interviews supplemented by focus group discussions and field notes were used (Groenewald, 2004). In all 36 interviews and two focus group discussions among four stakeholder groups were conducted through an iterative process until no new themes were emerging (Newing et al., 2011). The sample represented a distinctive cross-section of stakeholder groups who were directly or indirectly connected to CKNP and to each other in different ways. To avoid the implied disregard or advancement of certain groups and individuals (Kayat, 2002), two types of respondents were selected. Type one respondents were selected on the basis of their knowledge about the interactions among the Park personnel, tourism and other stakeholders. They included community representatives associated with the protected area such as the members of the community-controlled hunting areas, the Park Directorate staff, government officials, NGO officials and local tourism enterprises. Type two respondents were community members having little involvement in the Park or tourism and the tourists. The breakdown of the respondents interviewed in each of the four stakeholder groups is shown in Table 4.1.

Table 4.1: Breakdown of interviewees according to stakeholder group

Stakeholder group	#	Category
Protected area authorities	5	CKNP Directorate, Forest and Wildlife Department, EPA, and Tourism Department Gilgit-Baltistan
Local communities members	14	Porters, shepherds, women, community controlled hunting areas members, local activists
Tourism enterprises	9	Tour operators and hoteliers
Tourists	5	Domestic and international
Non-governmental organizations	3	International and local

This diversity allowed the researcher to draw on different perspectives about the environment and sustainable tourism. A semi-structured interview guide, (Appendix 3), was prepared for personal interviews with the respondents. The interview guide consisted of a list of open-ended questions. Initial responses to questions were followed up with further questions tailored to the preceding answer. The interview guide evolved from one interview to the next based on the information that emerged. Selection of interviewees continued until saturation point was reached, that is, the point when new interviewees seem to yield little additional information (Schutt, 2006; Newing et al., 2011; Chamblis & Schutt, 2012).

Although Gilgit-Baltistan is a relatively poor and underdeveloped region, the literacy rate is quite high. Therefore, nearly all the sample population could read and write. The researcher with the help of community members who volunteered to assist the researcher explained each question to the respondents before ticking the suitable response. Similarly, the consent from was read out clearly to the respondents and they were given the choice to decide before participating in the interviews.

Keeping in perspective the nature of the research, four distinct groups were considered when selecting a convenience sample from the local community. These groups included the porters and guides, members of the local community controlled hunting areas and hunters, conservation volunteer organizations, the local entrepreneurs and the local community members living adjacent to the CKNP. WWF-Pakistan and CKNP Directorate assisted in selecting the valleys and identifying these groups in each valley where the data was collected.

One limitation faced by the researcher was to involve more women in the survey. There were a number of reasons that constrained the researcher to interview more women to make the data gender balanced. For instance, no female staff members were appointed in the government departments and the tourism enterprises where data was collected. Majority of the tourists going to CKNP were climbers and mountaineers and therefore men. Moreover, it was difficult to approach the women due to cultural norms. Since the research was not specifically studying the differences in the perceptions on the basis of gender, it decreased the level of gender bias present in the data.

The interviews were conducted face-to-face and were tape-recorded and later translated into English and developed into transcripts for analysis. It was realized while in the field, as Rubin and Rubin (2005) point out, that since qualitative interviewing/responsive interviewing is a dynamic and iterative process, asking everyone the same questions made little sense. Therefore, the questions were restructured in many instances and customized for each interviewee. Interviews began with a topic in mind but the questions were modified to match the knowledge and interests of the interviewees. The response to each question was followed up with further questions to develop a conversation between the respondent and the interviewer (Newing et al, 2011). These interviews took place between June and July 2011. Typically, interviews lasted between 30 and 90 minutes.

In addition to semi-structured interviews, two focus group discussions, comprising 10 people in each group, were conducted with the local community to gain information on the kinds of issues these groups were concerned about and their ideas about what actions were needed in the future. These discussions lasted for 80 minutes. The overall aim was to identify the factors that affected the level of stakeholders' participation, to reveal underlying differences in respondents' perspectives and to gain deeper insight into what different stakeholders thought in terms of support for integrated tourism management in the park. A list of questions was developed for the focus group discussions, as shown in Appendix 4.

During the interview process, two identified stakeholders who were contacted did not participate. One of these respondents was the head of an international NGO working for CKNP. He stated that he did not have the time to participate, despite offers to conduct the interview at some later date. Despite several requests, he did not

provide any reports or publications on CKNP produced by his NGO. The other respondent from a large tour operating agency accepted the request to take the interview, but either did not respond to repeated calls from the researcher to give an interview date or procrastinated to avoid the interview. Both respondents also did not return the questionnaire sent to them by email. Their unresponsiveness was interesting as both respondents, although having direct connection to and apparent interest in CKNP, avoided being interviewed on the pretext that they did not have time for the interview.

4.5.1 Reliability and validity of qualitative data

Although it is a recognized fact that it is often difficult to control bias in qualitative research (Mehra, 2002; Shenton, 2004), a number of actions were taken to increase the reliability of the qualitative data. For instance, a document analysis was conducted on the CKNP and Gilgit-Baltistan by reviewing information on the internet and by studying articles, reports and other publications. The document analysis helped in assessing the accuracy of some of the information offered. The assurances about anonymity and commitment to confidentiality reduced the scope of bias during the interview and increased the reliability of the information received from the respondents. The researcher's approach to questioning was based on the use of clearly articulated and open questions. Open questions allow participants to provide an extensive and developmental answer and encourage them to reply in their own words (Newing et al., 2011; Saunders et al., 2007). To minimize the observers' error the researcher personally conducted the interviews and focus groups to reduce the potential of different ways of asking questions (Newing et al., 2011).

To ensure accuracy in data collection each interview was tape-recorded. Respondents were asked, prior to the interview, if they were willing to be taped to ensure accurate reporting of results. The process of transcribing the data and checking and re-reading transcripts produced accurate data, thereby providing consistency in the data collection. Tapes were listened to several times before, during, and after transcriptions were made. The transcription process, the use of interview guides and field notes, assisted in producing dependable data and descriptive data validation.

4.5.2 Sampling techniques

Purposive sampling was used to collect qualitative data. It is considered the most important kind of non-probability sampling to identify the primary participants (Welman & Kruger, 1999). Non-probability sampling techniques provide the opportunity to select the sample purposively and to reach 'difficult-to-reach' members of the population (Saunders et al, 2007). Purposive or judgment sampling is used when working with very small samples and when researchers wish to select cases that are particularly informative. Thereupon, researchers' own judgment is used to select cases that enable the addressing of the research questions and objectives (Neuman, 2005).

For personal interviews, individuals were targeted who were particularly knowledgeable about the issues under investigation. To gain the acceptance of the participants pre-survey, contacts were made by telephoning or personal meetings by using existing contacts (Buchanan et al., 1988) and developing new contacts with the intended participants to secure their cooperation. This approach made it convenient to gain access to the target population.

Purposive samples of each of the stakeholder groups were selected on the basis of their link with tourism in the park to enable the diversity and key dimensions of tourism to be explored. While designing the purposive sampling strategy the researcher adhered to the three guidelines suggested by Rubin and Rubin (2005) for selecting the informants: their knowledge about the issue being studied; their willingness to talk; and their representation of the range of point of views. As mentioned in Section 4.5, a total of 36 purposive samples were selected to explore, assess and understand the views of the tourists, the local community members, the tour operators, the park authority and local the NGOs. Subsequently, separate focus group discussions were held with two groups of local community members. The breakdown of the interviews sample included: local community members (15), Protected area authorities' members (6) Tourists (7), and tourism enterprises (9)

4.5.3 Qualitative analysis

As mentioned earlier, one of the key research methods used was qualitative analysis framed by an acknowledgement that knowledge is socially constructed and

that there can be multiple perspectives on a single subject (Denzin & Lincoln, 1994). Additionally, the analysis aimed to, "understand the phenomena under study in order to develop conceptual insights rather than test a hypothesis" (Minichiello et al., 1995, p. 164).

The qualitative data was collected through interviews and focus group discussions. Purposive sampling was used to enable the researcher to select cases that were particularly informative (Neuman, 2005; Patton, 2002). The participants were selected through personal contact with the protected area authorities and WWF who facilitated in identifying the members from the local communities and tourists visiting the Park. Particular intention was paid in identifying the participants who were directly or indirectly involved in CKNP or had a link with CKNP and were more familiar with the park issues. The participants selected were heterogeneous as they belonged to different sub-groups to ensure that variety of responses was obtained from a range of respondents from the target population (Saunders et al., 2012). This helped in capturing variations and commonalities in perceptions.

The key stakeholders were interviewed face-to-face. Interviews were undertaken to gain deeper knowledge about respondents' perceptions that could not be extracted through a questionnaire. These interviews addressed two main questions: stakeholders' perceptions of tourism; and their perceptions of the current management of tourism (Hardy, 2005). The aim was to obtain both differences and common elements in the perceptions of stakeholders about sustainable tourism development. Interviews were taped and then transcribed. Computer programs such as NUD*IST and its subsequent version NVivo (neural network software) were considered to code the data, but it was felt that such programs did little for the analysis and to truly "understand" the material, coding and analysing by hand was more useful (Coffey & Atkinson, 1996). This also allowed the researcher to become immersed in the details.

The interview analysis was guided by theoretical coding (Connell & Lowe, 1997). When conducting grounded theory research, the identification of theoretical codes is essential for the development of an integrated and substantive theory. In theoretical coding all codes/categories are related to the core category. Theoretical codes emerge during the data analysis process, rather than being overlaid on the data through the use of conjecture codes (Hernandez, 2009). Coding makes

conceptualization explicit, and it generates new knowledge rather than tests an existing theory.

To protect the privacy of individual stakeholders, codes were developed to identify each individual stakeholder interview on individual transcripts. These codes were based on the stakeholder group to which the individuals belonged. For instance, TE stands for stakeholders belonging to the tourism enterprises and LC stands for local community members, and so on. This allowed differentiation between the different types of groups. Using the grounded theory method of theoretical coding (Georgieva & Allen, 2008), each interview was coded with the initial letter of the stakeholder group name (e.g. PA, TE, LC and TR) then with the number representing the interview (e.g. PA1, TE1, LC1, etc.) and, finally, with a number representing the key points emerging from the interview (e.g. PA1.1, PA1.2, PA1.3, etc.). Each key point determined was compared with other points for similarities and connections. For instance, key point PA1.2 was compared with PA1.1. Common points were grouped together to form a key concept.

The concepts that shared common characteristics were grouped as categories. Within these categories, core categories emerged that were well connected with other categories. The theoretical coding allowed for concepts to become more refined. A full description of key emergent concepts was developed. For example, concepts used to organize ideas arising from the data included "natural resource use", "tourism benefits", and "perceptions of sustainable tourism", all of which emerged as key issues during the analysis phase of the research. The interview excerpts are used to illustrate these concepts throughout the thesis. Excerpts are representative of the widely expressed categories (Strickland-Munro, 2010). Excerpts have been edited to improve syntax caused by translation of the interviews from Urdu to English.

The interviews were supplemented by three informal focus groups. "Focus groups are often used for exploratory purposes to delve into group members thinking on a research topic" (Tashakkori & Teddlie, 2003, p.309). As the research used a Sequential mixed methods design (Figure 4.3), the focus group discussions helped the researcher in better understanding the information from the interviews and generating additional insights into stakeholders perceptions (Fontana & Frey, 2005). The discussions were conducted by the researcher with the help of an assistant. The

data from the focus groups was linked to the interview data to provide richer explanation and to obtain corroboration of findings (Tashakkori & Teddlie, 2003).

Each focus group consisted of a homogeneous group of 10-12 people. Focus group one represented the hunter community and members of the hunting associations. Focus group two comprised of local NGOs members and teachers from a CKNP valley. Porters and guides were included focus group three. During the conduct of the focus group the researcher facilitated group discussions on a series of questions written on the focus groups interview guide (Appendix). The focus groups were recorded that allowed for later in-depth analysis.

Throughout the research process, the collection of secondary data relevant to the research was also valuable. Secondary data were collected from relevant NGOs and government authorities such as the CKNP directorate, and the Departments of wildlife, forest and tourism. Data were collected from government and NGOs documents, including annual reports, management strategies and survey reports and from the internet.

Analysis of documents relevant to the research problem and purpose was also conducted. "Document analysis is a systematic procedure for reviewing or evaluating documents" (Bowen, 2009, p. 27). The main objective of document analysis was to supplement information collected through the surveys and in-depth interviews. "By examining information collected through different methods, the researcher can corroborate findings across data sets and thus reduce the impact of potential biases that can exist in a single study" (Bowen, 2009, p.28). Document analysis assisted in gaining in-depth understanding of policy and management as well as social and governance aspects related to CKNP.

The information from document analysis was extracted from two sources: public records: these included CKNP three management plans, annual reports, tourism policy, Biodiversity Convention report, Forest report and personal documents: these included journal papers on tourism, NGO project reports, Tourism Department's and NGOs Websites and media reports. It helped in contextualizing the data collected during interviews and to verify their findings (Bowen, 2009)

In document analysis, the researcher searches for structures and regularly occurring themes in the text and makes inferences on the basis of these regularities (Myers, 1997). Thematic framework approach was employed to critically examine

policy issues relating to tourism in Gilgit-Baltistan. The thematic framework approach involves organising the data into categories on the basis of themes, concepts or similar features, from which new concepts are, developed (Whitford & Ruhanen, 2010). Data contained in the documents was uncovered progressively through reading and annotation. The information yielded from document analysis was then coded into themes similar to how the interview transcripts were analysed which lead to the comparisons and natural creation of categories.

A thorough, systematic review of documentation provided background information that helped in the understanding of the social, political, and policy issues that influenced sustainable tourism in CKNP. The documentary data served to ground the research in the context of capacity issues and related concepts being investigated i.e. participation, policy gaps and networking.

4.6 Ethical considerations

Research integrity embodies a range of sound research practices and conduct which can include intellectual honesty, accuracy, fairness, intellectual property, and protection of human and animal subjects involved in the conduct of research. Ethical clearance for involvement of human subjects in this research was sought prior to any research work being undertaken. For this study, ethical clearance was obtained from the University of Southern Queensland (USQ) Human Research Ethics Committee prior to proceeding with the data collection process.

To ensure that the survey questionnaire was easily understandable and culturally appropriate, it was reviewed by three local community members apart from tourism experts in Pakistan. There are at least seven different local languages spoken in Gilgit-Baltistan. The questionnaire was translated in Urdu as it is the national language and is understood by all. However to avoid any cultural response bias, the wordings of the items were made as simple as possible.

Respondents were granted anonymity and confidentiality. Data collected were treated in an aggregated manner, ensuring confidentiality by ascribing the respondents' identification numbers. A master identification file was created linking numbers and names to allow the later correction of missing or contradictory information.

4.7 Conclusion

This chapter presented the design, approach and methodology of this research that was guided by the complex systems approach. The underlying philosophies of phenomenology, grounded theory and exploratory research guided the research process. Each of these interpretive approaches addressed questions related to meaning and understanding (Starks & Trinidad, 2007). Exploratory research was undertaken as no previous studies on sustainable tourism in CKNP exist. As such, exploratory research also fitted well with complexity thinking which views the world in terms of dynamic and evolving complex systems that need to be explored.

The phenomenology approach was used to elicit and interpret common features of experiences from the perspective of people who were the subject of the research. It was concerned with the experiences of people who were involved with the issues being researched. In addition, the concept of grounded theory assisted in careful analysis of literature and assessment of differing perceptions of stakeholder groups to explore multiple dimensions that influenced the development of tourism in the protected area. The predominant use of a mixed methods approach was deemed appropriate to understand the underlying characteristics of the complex system of CKNP.

Finally, this chapter demonstrated the analytical methods employed to generate research findings in this study. These included a survey questionnaire, semi-structured in-depth interviews with protected area authorities, local communities, tourism enterprises and tourists in the destination, as well as document analysis. It also provided an explanation of mixed method approach as a key method of data analysis within this research. The chapter concluded with an outline of the ethical considerations of this study.

Chapter Five

Interest, Understanding and Capacity of Stakeholders

5.1 Introduction

This chapter presents the findings of the quantitative analysis undertaken in this investigation. The chapter is divided into six main sections. The first section provides information about the demographic aspects of the sample and also covers data cleaning and missing data issues. The next three sections are devoted to the analysis of the five sub-scales that form part of the survey questionnaire for the first three research questions referred to in Chapter 1 Section 1.4.

Section 5.2 is devoted to the socio-demographic analysis and data cleaning and screening procedure adopted by the researcher. Section 5.3 is based on the empirical findings derived from the first sub-scale, "The New Ecological Paradigm Scale" (NEP) that measures stakeholders' level of interest in the environment and answers the first research question: *What is the level of interest of the key stakeholders in the environment? Is the level of interest among different stakeholders significantly different?* This section presents the three dimensions of environmental beliefs that stakeholders attach to the environment. Each dimension represents their level of interest in the environment.

Section 5.4 provides the analytical discourse on the second sub-scale, "Sustainable Tourism Attitude Scale" (SUS-TAS), to answer the second research question: *What is the level of understanding of the stakeholders about sustainable tourism? Is the level of understanding among different stakeholders significantly different?* The findings reveal a four dimensional structure of SUS-TAS and signify the level of stakeholders' understanding about sustainable tourism for each of the four dimensions.

Section 5.5 presents the findings from the two sub-scales, "Community Capacity for Sustainable Tourism" (CC-ST) and, "Protected Area Authorities Capacity for Sustainable Tourism" (PAC-ST) to answer the third research question:

What are the stakeholders' perceptions about their capacity to engage in sustainable tourism? Finally, a brief summary of the analysis of the five scales is presented in section 5.6.

5.2 Preliminary analyses

5.2.1 Demographic profile

The survey questionnaire was administered to 320 respondents aged between 18 and 65. Of these, 292 respondents completed the questionnaire. The number of each of the four stakeholder groups was: local communities 155 (53%), tourists 62 (21%), protected area authorities 32 (11%) and tourism enterprises 43 (15%). The mean age of the sample was 34.5 years. The sample consisted of 350 (86.3%) male respondents and 40 (13.7%) female respondents.

Table 5.1 presents the occupational profile of local communities and tourists. Nearly 21% of the local communities' occupation was related to tourism and 28.8% owned a business. Only 6.8% were unemployed. Nearly 26% of the tourists were unemployed and 44% either owned a business or were privately employed. Both international and domestic tourists were surveyed. The domestic tourists had come from all over the country. Majority of the international tourists were from Europe, USA and Japan. There was also fairly large number of Chinese residing in Gilgit-Baltistan who were working on infrastructure project with the government.

Table 5.1: Occupation of two stakeholder groups

	Local community		Tourists	
	F	%	F	%
Private job	29	22	13	21.0
Business	38	28.8	13	21.0
Farmer	18	13.6	-	
Government	7	5.3	7	11.3
Tourism	28	21.2	3	4.8
Unemployed	9	6.8	16	25.8
Education	3	2.3	4	6.5
Total	132	94.3	62	100

The sample of local communities was selected from eight valleys adjacent to CKNP. The sample was very heterogeneous in terms of ethnicity and language diversity. Respondents from Skardu and Ghanche districts belonged to Balti and Ladakhi cast and spoke Balti dialect. Respondents from Gilgit represented a mix of

Kashmiris, Pathans, and Moghuls and predominantly spoke Shina (Ansari, 2009). Participants from Hunza-Nagar were from three different ethnic tribes and spoke three different dialects of Burushaski, Wakhi and Shina (Hunza-Nagar, 2013).

The educational level of each stakeholder group is given in Table 5.2.

Table 5.2: Education level of stakeholder groups

Ed. level	LC (n=143)		PAA (n=32)		TR (n=59)		TE (n=43)	
	F	%	F	%	F	%	F	%
Primary	40	25.8	0	0	21	33.9	1	2.3
Secondary	41	26.5	1	3.0	11	17.7	11	25.6
Diploma	11	7.1	0	0	4	6.5	9	20.9
Bachelors	35	22.6	7	21.2	6	11.0	8	18.6
Masters	14	9.0	25	75.8	15	24.2	14	32.6
Other	6	3.9	0	0	1	1.6	0	0

Note: LC =local communities, PAA=protected area authorities, TR= tourists and TE- tourism enterprises

Protected area authorities had the highest level of education with 97% of the respondents had completed tertiary education. Nearly 53% of the local community member had completed their elementary education with 31.6 % having tertiary education. Nearly 52% 0f the tourists had elementary education and 35.5% held a tertiary education degree. Tourism enterprises had the highest percentage of diploma holders as compared to other stakeholder groups (20.9%) and 51% had obtained tertiary education.

5.2.2 Missing Data

When conducting research with human beings it is rare to obtain complete data from every case. It is, therefore, important to inspect the data set for missing values (Pallant, 2011). Since missing data can affect the generalizability of the results it can have significant impacts on multivariate analysis techniques (Hair et al., 2010). To maintain as close as possible the original distribution of values the researcher followed a structured process of finding the missing data and then applied the most appropriate remedy to resolve the issue.

The pattern and extent of the missing data was determined first. The numbers of cases with missing data for each variable were tabulated to identify the extent of missing data and any non-random patterns in the data. As a rule of thumb, missing data under 10% for an individual case or observation can generally be ignored (Hair

et al., 2010). It was determined that the extent of missing data was acceptably low (between 3%-5% for each case) and no specific non-random patterns appeared.

According to Hair et al. (2006, p. 54-55), "If the missing data is sufficiently low even if it is non-random then the researcher can employ any of the imputation techniques without biasing the results in any appreciable manner". Imputation is a method to estimate the missing value based on valid values of other variables or cases in the sample (Hair, et al., 2006). Imputation by using replacement values was applied to replace the missing data. This involved replacing missing values for a variable with the mean value of that variable calculated from all valid responses.

5.2.3 Outliers

Errors made when coding or entering data into a computer can threaten the validity of the measure and can cause misleading results and ruin the whole research project (Hair et al., 2006; Neuman, 2005). Outliers are observations that are identifiable as distinctly different from the other observations across variables that make the observation stand out from others (Hair et al., 2010), or values that are well below or well above the other scores. The researcher first checked the categories of all variables for impossible codes and outliers and the extreme values were deleted and replaced.

5.3 Interest of stakeholders in the environment

The purpose of this analysis was to measure the level of interest in the environment of stakeholder groups associated with the protected area and how this interest was shaped by the values they attached to the environment of the protected area.

5.3.1 NEP-HEP stance

The revised New Ecological Paradigm (NEP) scale was used to measure the differences in environmental interest among the stakeholder groups. The justification for using the NEP scale was that it has been increasingly applied and tested within diverse cultural contexts in social research to measure general environmental attitudes (Kim et al., 2006; Rideout, et al., 2005; Verdugo & Armendariz, 2000) and examines multiple expressions of concern, such as beliefs, attitudes, intentions and

behaviour (Hawcroft & Milfont, 2010). It has become the most widely used measure of environmental attitudes since publication of the original scale in 1978 (Dunlap & Jones, 2002; Dunlap & Van Liere, 1978; Hawcroft & Milfont, 2010; Mair, 2011). The revised NEP consists of two distinct dimensions in which 7 of the 15 items are worded in a humans over nature direction and focus on "anthropocentrism or the belief that nature exists primarily for human use and has no inherent value of its own" (Dunlap et al., 2000, p. 431), depicting a human exemptionalism paradigm (HEP). The rest of the eight items view human beings as part of the ecological system and their interdependence with the natural world, emphasizing a pro-environmental paradigm (NEP). Table 5.3 contains the mean values obtained for each NEP-HEP item for the entire sample. Because the coding for the seven even numbered HEP items was reversed, a low mean value indicated high acceptance.

The two items that yielded the strongest responses were NEP 5 "Humans are severely abusing the environment" and NEP 7 "Plants and animals have as much right as humans to exist". More than 60% of the respondents agreed or strongly agreed with these statements, producing NEP mean scores of 3.82 and 3.68 (out of 5) respectively. The results of these two statements exhibit similar trends obtained in other research studies using the NEP (Kim et al., 2006; Lee, 2008), where the two statements reveal a strong inclination towards an eco-centric interest in nature. The respondents showed a significant level of uncertainty for Item 1 "We are approaching the limit of the number of people that the earth can support" (34.6%); Item 2 "Humans have the right to modify the natural environment to suit their needs" (32.2%); and Item 10 "The so called ecological crisis facing humankind has been greatly exaggerated" (33.6%). One reason for this inclination to take an indecisive stance could be that all the above three items are debatable and have generated controversial and inconclusive arguments.

Item 6 on the scale, "The earth has plenty of natural resources if we just learn how to develop them" exhibited the smallest percentage agreement with NEP beliefs. Pro-NEP agreement with this item was 14.0%. The data from other studies also show Item 6 as generating the lowest pro-NEP agreement on the scale (Dunlap et al., 2000; Erdogan, 2009; Kim et al., 2006; Rideout et al., 2005; Wurzinger & Johansson, 2006). Rideout et al. (2005) are of the view that one possible explanation could be that respondents are not discriminating with sufficient depth the use of the word

"develop". The statement may be misinterpreted as equivalent to "The earth has plenty of natural resources if we just learn how to use them appropriately".

Table 5.3: Frequency distributions and mean responses for the NEP Scale (N=292)

Statements	SD	D	A/D	A	SA	Total Pro-NEP %	M	S Dev.
1. We are approaching the limit of the number of people that the earth can support.	12	13.4	34.6	21.9	17.5	39.4	3.19	1.22
2. Humans have the right to modify the natural environment to suit their needs.	*12.0*	*23.3*	*32.8*	*15.4*	*16.4*	*35.3*	*2.99*	*1.24*
3. When humans interfere with nature it often produces disastrous consequences.	7.5	11.3	26.3	22.2	32.2	54.4	3.61	1.25
4. Human ingenuity will ensure that we do not make the earth unlivable.	*6.5*	*15.1*	*32.0*	*29.9*	*16.1*	*21.6*	*2.67*	*1.13*
5. Humans are severely abusing the environment.	4.8	9.6	24.8	33.6	26.4	60.0	3.68	1.12
6. The earth has plenty of natural resources if we just learn how to develop them.	*4.8*	*9.2*	*20.5*	*26.7*	*38.7*	*14.0*	*2.15*	*1.17*
7. Plants and animals have as much right as humans to exist.	4.1	11.0	21.9	24.5	38.4	62.9	3.82	1.18
8. The balance of nature is strong enough to cope with the impacts of modern industrial nations.	*13.0*	*21.5*	*28.0*	*22.6*	*14.7*	*34.5*	*2.95*	*1.25*
9. Despite our special abilities, humans are still subject to the laws of nature.	5.1	8.9	32.4	31.0	22.3	53.3	3.57	1.09
10. The so-called "ecological crisis" facing humankind has been greatly exaggerated.	*8.9*	*21.6*	*33.6*	*20.9*	*11.6*	*29.8*	*2.94*	*1.13*
11. The earth is like a spaceship with very limited room and resources.	9.1	21.6	33.3	22.6	13.0	35.6	3.09	1.15
12. Humans were meant to rule over the rest of nature.	*8.2*	*22.9*	*31.0*	*21.4*	*15.4*	*31.1*	*2.87*	*1.20*
13. The balance of nature is very delicate and easily upset.	9.2	14.3	26.2	31.7	18.2	49.9	3.36	1.21
14. Humans will eventually learn enough about how nature works to be able to control it.	*17.8*	*13.7*	*25.3*	*28.1*	*14.4*	*31.5*	*2.94*	*1.31*
15. If things continue on their present course, we will soon experience a major ecological disaster	14.0	8.2	21.6	32.4	23.6	56.0	3.43	1.31

Note: Items in *italics* are reverse coded

NEP Item 4 "Human ingenuity will ensure that we do not make the earth unliveable" also exhibited a small percentage agreement with pro-environmental values (21.6%). The two possible explanations given by Kim et al. (2006) are that respondents might be rather undecided in their environmental belief and have some

level of anthropocentrism; and the wording of the item may not be structured in a way to represent anti-environmental orientation. Deeper analysis of the item indicates that it reflects a socio-altruistic value to nature where the environment is considered as a natural capital that can be used but simultaneously developed. The results of the factor analysis in Table 5.2 showed low factor loadings for item 4 confirming the inconsistency of the statement which may not necessarily express an anti-environmental stance as anticipated in the scale. Similarly, Item 6 in the factor analysis loaded highly on the eco-centric factor reflecting respondents' inclination towards perceiving the item as pro environmental rather than pro-HEP.

5.3.2 Constructs of revised NEP scale

A reliability test was conducted to confirm the internal consistency of NEP scale. As a rule of thumb, values higher than .70 indicate internal consistency, although .60 is acceptable in exploratory studies (Hair et al., 2010). The internal consistency of the scale was high (a = .783). For Exploratory factor analysis (EFA), a sample size of 300 is considered appropriate (Bruin, 2006; Comrey & Lee, 1992). The study sample size of 292 was close to this benchmark. EFA using principal components analysis was performed on the NEP scale to obtain the three levels of ecological interests. The result of the factor analysis is presented in Table 5.4. The factor loadings varied from .294 to .719, with a lowest loading of .059 for Item 6.

The results of the EFA confirmed a three factor solution, which accounted for 49% of the variance, with eight of the 15 items (1, 3, 5, 6, 7, 9, 11, & 13) loading on the first factor (.35 to .763). In addition to statistical evidence, the link between these items can be justified theoretically in relation to their similarity. All these items, except item 6, have a shared aspect with regard to strong affiliation with the environment that is, they are pro- NEP. Accordingly, this factor was labeled "eco-centric". As Item 6 although exhibiting a pro-HEP stance in the NEP scale, with a factor loading of (.76) was significant to its construct and did not jeopardize the integrity of the results, it was retained in the analysis for construct consistency.

Three of the 15 items (10, 12, and 14) loaded heavily on the second factor (.362 to .719), reflecting strong anti-environmental humans over nature values.

Table 5.4: Exploratory factor analysis of NEP Scale

Item statements	Factor loadings		
Eco-centric	Factor 1	Factor 2	Factor 3
1	**.510**		
3	**.628**		
5	**.624**		
6	**.763**		
7	**.706**		
9	**.350**		
11	**.558**		
13	**.510**		
Egoistic			
10		**.719**	
12		**.399**	
14		**.362**	
Socio-altruistic			
2			**.499**
4			**.300**
8			**.529**
15			**.584**
Cumulative %	49%		

Therefore, factor two was labelled “egoistic”. Four of the 15 items (2, 4, 8, and 15) loaded on the third factor (.300 to .584). As factor three indicated anthropocentric values, it was labelled “socio-altruistic”.

5.3.3 Comparing differences in stakeholders interest

Mean values of the 15 revised NEP scale items for the four stakeholder groups were calculated using One-way ANOVA with Tukey post-hoc test, as shown in Table 5.5. Item wise results in Table 5.4 show that there were significant differences among the four groups for 10 of the items in the scale. The protected area authorities and the local communities rated 8 of these items either significantly higher or significantly lower than the tourists and the tourism enterprises. Thus, local communities and protected area authorities agreed more with six of the eco-centric items (1, 3, 5, 7, 9 and 13) than did the other two groups.

For five items (11, 2, 8, 10, and 12) across the three factors no significant group differences were found. All groups moderately agreed with these assertions. On three items, protected area authorities agreed significantly more than the other groups, namely on items 7, 15 and 9, showing the strongest support for eco-centric values. Tourists and tourism enterprises agreed significantly more than the other two

groups on three items, namely 4, 6 and 12, showing greater acceptance of socio-altruistic and egoistic beliefs.

Table 5.5 Mean ratings of the 15 NEP items for the four stakeholder groups with Tukey post-hoc

Scale	Local community (LC)		Tourists (TR)		Protected area Authorities (PAA)		Tourism enterprises (TE)		Level of significance	
	M	SD	M	SD	M	SD	M	SD	F	P
Eco-centric										
1†	3.88	1.26	3.00	1.03	3.25	1.39	2.44	1.11	8.426	.000*
3	3.44	1.20	3.13	.93	3.25	1.19	3.00	1.25	10.791	.000*
5	3.83	1.16	3.26	.95	3.89	1.12	3.55	.95	4.696	.003*
7	4.05	1.10	3.23	1.07	4.38	.91	3.47	1.31	12.129	.000*
9	3.62	1.11	3.32	.98	4.03	.89	3.40	1.13	3.600	.014*
11	3.11	1.23	3.16	.92	3.04	1.17	2.94	1.12	.363	.780
13	3.55	1.25	3.16	1.10	3.08	1.10	3.08	1.10	2.909	.035*
Egoistic										
10	*2.90*	*1.15*	*3.10*	*1.03*	*3.01*	*1.16*	*2.85*	*1.09*	*.636*	*.592*
12	*2.69*	*1.18*	*3.08*	*1.12*	*3.01*	*1.23*	*3.04*	*1.18*	*2.299*	*.078*
14	*2.95*	*1.37*	*3.33*	*1.17*	*2.10*	*.76*	*2.93*	*1.26*	*6.729*	*.000**
Socio-altruistic										
2	*2.85*	*1.36*	*3.21*	*.81*	*2.44*	*1.11*	*3.13*	*1.15*	*1.620*	*.185*
4	*2.52*	*1.20*	*3.00*	*.86*	*2.50*	*1.04*	*2.79*	*1.05*	*3.276*	*.021**
6	*1.89*	*1.08*	*2.92*	*1.01*	*1.48*	*.79*	*2.47*	*1.31*	*18.73*	*.000**
8	*2.81*	*1.32*	*3.06*	*1.02*	*3.22*	*1.31*	*3.14*	*1.14*	*1.694*	*.168*
15	3.60	1.35	2.85	1.15	4.03	1.06	3.23	1.25	7.859	.000*

Note: All even numbered HEP items have been reverse coded and appear in *italics.*
M = Mean; SD = Standard Deviation
† numbers refer to the NEP statements shown in Table 5.1. Item 1 corresponds to statement 1 and so on. * Significantly different from other groups at $p<.05$.

This result is consistent with previous research where NEP results were employed in a protected area to evaluate environmental attitudes among the stakeholder groups (Liu et al., 2010). In this research, government staff reported the highest pro-environment scores and tourism enterprises the lowest.

In addition, the means for each of the three values (eco-centric, socio-altruistic, and egoistic) were calculated and compared for the four stakeholders (Table 5.6). Eco-centric values demonstrated high ecological interest; socio-altruistic

values were linked to moderate interest in the environment; and egoistic orientation exhibited low ecological interest.

The overall findings indicate that protected area authorities and local communities exhibited the highest eco-centric interest in the environment with mean scores of 3.68 and 3.64 respectively compared to tourists and tourism enterprises (3.19 and 3.12). However, the tourists exhibited an equally high level of interest in egoistic values (3.17) followed by the tourism enterprises (2.94); as opposed to the local communities and protected area authorities who had lower mean scores for egoistic values (2.84 and 2.70).

Table 5.6: Mean scores of the three value orientations for the four stakeholder groups

SH Groups	LC		TR		PAA		TE	
	M	SD	M	SD	M	SD	M	SD
Eco-centric	3.6393	.72479	3.1881	.61124	3.6831	.56328	3.1237	.64388
Socio-altruistic	2.7309	.65654	3.0090	.50474	2.8654	.51743	2.9501	.51636
Egoistic	2.8444	.87122	3.1701	.74865	2.7048	.76364	2.9393	.59567

SH Groups=stakeholder groups; LC=local communities; TR=tourists; PAA=protected area authorities; TE= tourism enterprises

The tourists ranked the three opposing values with equal magnitude showing a blend of eco-centric, socio-altruistic and egoistic values with scores of 3.19, 3.0 and 3.17 respectively across the three dimensions. Looking at the mean scores of the three sub-scales, it can be concluded that the protected area authorities and the local communities showed a moderately high level of eco-centric interest in the environment with greater recognition of the intrinsic value of the environment as compared to tourism enterprises and tourists who exhibited a somewhat low interest in eco-centric values.

The results shown in Table 5.6 were consistent with the results showing differences among four stakeholder groups in Table 5.7 as no significant differences were found between protected area authorities and local communities in the overall means across the three sub-scales, reflecting a similar level of interest in the environment. Likewise, no significant differences were found between tourists and tourism enterprises, exhibiting a closely matching environmental interest. However, the protected area authorities and local community groups were significantly different from tourism enterprises.

Table 5.7: Tukey post-hoc results showing differences in four stakeholder groups

	PAA	LC	TR	TE
PAA	1			
LC	.570	1		
TR	.223	.301	1	
TE	.019*	.011*	.155	1
Mean	3.21	3.17	3.12	3.02

SH Groups = stakeholder groups; TE=tourism enterprises; TR=tourists; LC=local communities; PAA=protected area authorities

* Significantly different from other groups at p<.05.

Considering that there was little difference in the mean scores of the three value orientations among the stakeholder groups (Table 5.6), it can safely be assumed that, though generally pro-NEP, the values inclined towards an egocentric interest in the environment with a utilitarian ethic. While environmental concern was shared, it was dictated by the benefits attached to protection and conservation of the environment. The results of the analysis, therefore, showed a very complex mix of ecological value orientations among the stakeholders that underlie the equally complex tourism system in protected areas where competing interests, economic gains and the struggle for survival mark the differences in stakeholder groups' environmental orientations.

5.4 Stakeholders' understanding of sustainable tourism

The sustainable tourism attitude scale (SUS-TAS) was developed by Choi and Sirakaya-Turk (2005) to assess residents' attitudes toward sustainable tourism. Since initial development of the scale, SUS-TAS has been widely used and validated by tourism researchers (Yu et al., 2011; Sirakaya-Turk et al., 2008; Prayag et al., 2010). The scale was revised according to the requirements and understanding of the respondents in the study area. As noted in sub-section 4.4.3, the original SUS-TAS containing 44 items (Choi & Sirakaya-Turk, 2005; Sirakaya-Turk et al., 2008) was modified and its number of items reduced to 21 to suit the purpose of this research.

5.4.1 Stakeholders' perceptions of sustainable tourism

Table 5.8 contains the mean values obtained for each item for the entire sample. Because the coding for items 1 and 2 was reversed, a high mean value indicated high acceptance of the item. The results displayed in Table 5.8 show that mean scores for all of the items were above 3.0, indicating that, except for Items 1 and 2, the respondents had a moderately high level of understanding about

sustainable tourism. Table 5.8 also shows the response frequency distribution for the data set in terms of percentage of respondents selecting each response and their total percentage agreement with each item. The responses varied from 45.1% (Item 1) to 66.8% (Item 6), with a mean score of 59.18%. Overall, the respondents exhibited good understanding of sustainable tourism.

The two items that yielded the strongest responses were Item 4, "The Park's environment must be protected now and for the future" and item 6, "I believe tourism development needs well-coordinated planning". More than 65% of respondents agreed or strongly agreed with these statements, producing mean scores of 3.87 and 3.82 (out of 5). These results show that the respondents highly value the environmental dimension of sustainable tourism and exhibited a strong level of understanding of the importance of coordinated planning to reach sustainable tourism goals. This result substantiated the assumption that there is a link between the environment and tourism.

The second highest response rate was for Item 8, 'I believe tourism in the park should be a strong economic contributor to the community' and Item 9, 'Tourism in the park should bring new income to the community'. About 63% of respondents strongly agreed or agreed with these statements, confirming a strong interrelationship between livelihoods and tourism. One possible reason for this strong agreement with the economic dimension of sustainable tourism could be attributed to the perceived economic gains from tourism. Tourism could be of significant importance for the respondents as an important source of revenue to supplement their livelihoods.

More than 62% of the respondents agreed that the 'Park's environment must be protected for the future' (Item5) and 'tourism development in the park must promote positive environmental ethics among all parties with a stake in tourism' (Item 20). It can be inferred from the above analysis that the respondents were aware of the complex inter-linkages between tourism, the environment and livelihoods (Nunkoo & Gursoy, 2012).

Table 5.8: Frequency distributions and mean responses of SUS-TAS (n=292)

#	Statement	SD	D	A/D	A	SA	Total %	M	S Dev
1	*There should be unlimited tourists in the park*	*20.7*	*24.4*	*24.8*	*15.9*	*14.1*	*45.1*	*3.22*	*1.32*
2	*The tourists have the right to use the recreational resources in any way they want*	*19.0*	*31.0*	*24.4*	*14.4*	*11.0*	*50.0*	*3.32*	*1.25*
3	Proper tourism development requires that wildlife and natural habitats be protected at all times	9.7	10.3	19.3	26.3	33.1	59.4	3.65	1.30
4	The park's environment must be protected now and for the future	6.6	8.6	19.7	21.7	43.4	65.1	3.87	1.24
5	Tourism must be developed in harmony with the natural and cultural environment	9.0	7.5	21.0	27.2	35.2	62.4	3.72	1.26
6	I believe tourism development needs well-coordinated planning	6.2	8.2	18.6	31.7	35.1	66.8	3.82	1.18
7	Tourism development plans for the park should be continuously improved	10.0	7.2	21.0	25.5	36.2	61.4	3.71	1.29
8	I believe tourism in the park should be a strong economic contributor to the community	5.2	9.2	22.2	29.6	33.4	63.0	3.77	1.15
9	Tourism in the park should bring new income to the community	5.9	8.6	21.7	31.2	32.1	63.2	3.75	1.16
10	I think tourism businesses in the park should hire at least one-half of their employees from within my community	7.9	10.7	25.8	29.0	26.6	55.6	3.55	1.21
11	Community residents should receive a fair share of benefits from tourism in the park	6.6	8.6	26.5	33.4	24.8	58.2	3.61	1.14
12	The tourism businesses in the park should obtain at least one-half of their goods and services from within community	5.9	11.4	28.5	33.7	20.3	54.0	3.51	1.11
13	Tourism businesses must contribute to community improvement funds	6.2	6.9	25.4	40.2	19.7	59.9	3.62	1.07
14	Tourism should create new markets for local products	4.1	8.1	24.3	33.2	28.6	61.8	3.75	1.08
15	Tourism businesses must monitor visitor satisfaction	4.5	8.1	25.0	38.7	22.0	60.7	3.65	1.05
16	Tourism businesses must ensure good quality tourism experiences for visitors	3.8	10.9	24.9	33.6	26.2	59.8	3.67	1.09
17	Full participation in tourism decision-making by everyone in the community is a must for successful tourism development	6.2	9.7	26.2	34.9	22.8	57.7	3.58	1.12
18	Community residents should be given more opportunities to invest in tourism	4.8	9.3	27.2	36.0	22.4	58.4	3.62	1.07
19	I think residents must be encouraged to assume leadership roles in tourism committees	5.5	8.2	27.2	33.0	25.8	58.8	3.66	1.11
20	Tourism development in the park must promote positive environmental ethics among all parties with a stake in tourism	5.9	4.1	27.5	27.2	35.1	62.3	3.82	1.13
21	Park's recreational resources are overused by tourists	14.1	15.9	24.8	24.4	20.7	45.1	3.22	1.32
	Total mean % score						59.18		

Note: SD = strongly disagree; D= disagree; A/D= neither agree nor disagree; A= agree; SA= strongly agree.

The respondents exhibited the smallest percentage agreement for item 1, "There should be unlimited tourists in the park" (reverse coded) and item 21, "Park's

recreational resources are overused by tourists". The scores for both these statement were 45.1%. Unlike previous studies where respondents exhibited a high level of concern for increased tourist activity (Ko & Stewart, 2002; Yu et al., 2011), it seems the respondents in the present research had a low level of understanding about the social and resource use implications of unlimited tourism development and increased number of tourists. In other words, they exhibited limited understanding that sustainable tourism places certain limits on the number of tourists to avoid any negative social and environmental influences of mass tourism.

On the other hand, the above finding is consistent with previous research findings in which the results did not support that perceived social costs were significant with negative effects on residents' quality of life or possible negative environmental impacts of tourism on natural resources (Kuvan & Akan, 2012; Yu et al., 2011). The findings can be compared to the early development stage in Butler's (1980) life cycle as there are a limited number of tourists visiting Gilgit-Baltistan region due to terrorism concerns and government policies mentioned in Chapter 3. The limited number of tourists may have resulted in residents' perceiving tourism with hardly any social costs that could impact the park's quality and their quality of life. The stakeholders, therefore, anticipate positive outcomes from increased numbers of tourists. The limited number of tourists may have resulted in residents' perceiving tourism with hardly any social costs that could impact the Park's quality and their quality of life.

5.4.2 Testing the revised SUS-TAS

Churchill (1979) suggests that if a scale is new, exploratory factor analysis should be performed to test the scale's construct validity and dimensions. The number of items in SUS-TAS was reduced and wordings of the items were also adjusted according to the suitability of the construct being measured. Exploratory factor analysis using principal components analysis (PCA) with varimax rotation was, therefore, performed to determine the main dimensions of sustainable tourism (Sirikaya-Turk et al., 2008).

Prior to this, the Kaiser–Meyer–Olkin (KMO) measure of sample adequacy and Bartlett's test of sphericity were performed to determine the appropriateness of factor analysis and whether the sample size was suitable for undertaking factor

analysis (Tabachnick & Fidell, 2007). These two statistical measures help to assess the factorability of the data (Pallant, 2011). Bartlett's test of sphericity should be significant ($p < .05$) for the factor analysis to be considered appropriate. The KMO index ranges from 0 to 1, with .6 suggested as the minimum value for a good factor analysis (Tabachnick & Fidell, 2007).

As shown in Table 5.9, the value of KMO was .923, which is considered 'very good' (Kaiser, 1974). The overall significance of the correlation matrix was p = < 0.05, with a Bartlett's test of sphericity value of 4291.6. Both tests indicated that there was a significant correlation between the variables, confirming the suitability of the data for factorization (Hair et al., 2010).

Table 5.9: Eigenvalues, variance explained, and Cronbach's Alpha of SUS-TAS factors

Factor	Number of items	Eigenvalues	Variance (%)	α	Mean scores
Perceived social costs	3	4.394	24.94	.860	3.25
Tourism planning for environmental sustainability	5	5.164	23.87	.923	3.75
Perceived economic benefits	5	3.187	15.05	.874	3.64
Participatory governance	8	2.427	7.84	.929	3.67

Note: N = 292. Kaiser-Meyer-Olkin measure = .923; Bartlett's test = 4291.6 (p = .000); Total variance explained in the data = 72.25%.

Internal consistency (construct reliability) was determined using Cronbach's alpha. The Cronbach's alpha coefficients ranged from .860 to .929 (Table 5.9). All latent constructs exhibited a strong correlation (higher than .70) (Nunnally & Bernstein, 1994). The composite reliability of all four constructs (.929) exceeded the recommended minimum level of .70 (Hess-Biber, 2010). Overall, the variables were found to be internally consistent. Cronbach's alpha coefficients for individual SUS-TAS domains ranged from .860 (lowest) to 0.929 (highest) with a total scale reliability of .929 (Table 5.9). This indicates that the variables exhibited a strong correlation with their factor grouping and thus were internally consistent.

The results of the EFA exhibited that the constructs to be measured were well defined and were represented by the scale items (Nunnally & Bernstein, 1994; Sirakaya-Turk et al, 2008). Factors with eigenvalues greater than one and factor loadings of 0.5 and above were chosen for interpretation. Although the original SUS-TAS items were reduced from 44 to 21, the revised scale demonstrated adequate

construct validity and good internal consistency. The 21 items loaded on four factor domains (Table 5.10).

Table 5.10: Exploratory factor analysis of revised SUS-TAS items (n= 290)

Factor number and Item Description	Factor Loading	Commun ality
Factor 1: Perceived social costs		
1 There should be unlimited tourists in the park	.959	.727
2 The tourists have the right to use the recreational resources in any way they want	.684	.763
21 Park's recreational resources are overused by tourists	.959	.727
Factor 2: Tourism planning for environmental sustainability		
3 Proper tourism development requires that wildlife and natural habitats be protected at all times	.763	.742
4 The park's environment must be protected now and for the future	.807	.766
5 Tourism must be developed in harmony with the natural and cultural environment	.791	.741
6 I believe tourism development needs well- coordinated planning	.839	.824
7 Tourism development plans for the park should be continuously improved	.685	.736
Factor 3: Perceived economic benefits		
8 Tourism in the park should bring new income to the community	.633	.719
9 I think tourism businesses in the park should hire at least one-half of their employees from within my community	.752	.627
10 Community residents should receive a fair share of benefits from tourism in the park	.710	.732
11 The tourism businesses in the park should obtain at least one-half of their goods and services from within community	.642	.680
12 I believe tourism in the park should be a strong economic contributor to the community	.565	.687
Factor 4: Participatory governance		
13 Tourism businesses must contribute to community improvement funds	.560	.694
14 Tourism should create new markets for local products	.749	.700
15 Tourism businesses must monitor visitor satisfaction	.811	.753
16 Tourism businesses must ensure good quality tourism experiences for visitors	.789	.702
17 Full participation in tourism decision-making by everyone in the community is a must for successful tourism development	.765	.648
18 Community residents should be given more opportunities to invest in tourism	.849	.775
19 I think residents must be encouraged to assume leadership roles in tourism committees	.752	.663
20 Tourism development in the park must promote positive environmental ethics among all parties with a stake in tourism	.627	.663

The four factors were labelled as follows: factor 1 = perceived social costs (3 items); factor 2 = planning for environmental sustainability (5 items); factor 3 = perceived economic benefits (5 items); and factor 4 = participatory governance (8 items). Only one item (8) was loading on more than one factor with a loading score of greater than 0.50. It was retained in factor 3. All four factors with eigenvalues

equal to or greater than 1 explained almost 72.25% of variance in the data set sharing aspects between the items in each factor (Table 5.10).

5.4.3 Testing the differences in stakeholders' understanding of sustainable tourism

ANOVA was used to test the differences between stakeholder groups. Composite scores for factors were computed to understand the stakeholders' rating patterns for each factor. As shown in Table 5.11, the mean scores for factors revealed that on average stakeholders had a good understanding of the significance of planning for environmental sustainability and its recognition as an important dimension of sustainable tourism (M = 3.75).

They tended to agree that government should contribute to environmental management and adopt a long-term planning approach to tourism development. Their second highest mean score was for factor 4 (M = 3.67).

The stakeholders were in agreement that tourism development should contribute to community-centred benefits and that community development and involvement were important. However, their mean score was the lowest when it came to the perceived social costs (M = 3.25). These low composite factor scores indicate that stakeholders on average had a lower level of understanding about the social and cultural costs of tourism development in the protected area. The results also indicate that the stakeholders held a positive attitude towards tourism as very few felt that tourism was disrupting their lives.

It was observed that the means of items reflecting planning for environmental sustainability (factor 2) and participatory governance (factor 4) were higher than the means of the perceived social costs (factor 1) and perceived economic benefits (factor 3) exhibiting a relatively high understanding of the significance of the quality of the environment, long term planning and strong participatory governance structure as the key elements on which tourism depends and for initiating the process of sustainable tourism development in CKNP. Similar to the results of research findings (Udaya Sekhar, 2003; Walpole & Goodwin, 2001), the assumption that there is a link between tourism and conservation was supported.

Table 5.11: Mean ratings of the 21 SUS-TAS items for the four stakeholder groups: Tukey Post-hoc

Scale	Local community (LC) *n = 155*		Tourists (TR) *n = 62*		Protected area Authorities (PAA) *n = 32*		Tourism enterprises (TE) *n = 41*		Level of significance	
Factor 1: Social costs Total Mean score = 3.25										
	M	SD	M	SD	M	SD	M	SD	F	P
Item 1†	*3.01*	*1.44*	*3.42*	*1.21*	*3.36*	*1.08*	*3.56*	*1.07*	*2.918*	*.035*
Item 2	*3.14*	*1.31*	*3.32*	*1.17*	*3.94*	*.96*	*3.49*	*1.18*	*4.085*	*.007**
Item 21	*3.14*	*1.31*	*3.32*	*1.17*	*3.94*	*.96*	*3.49*	*1.18*	*4.085*	*.007**
Total FS	**3.05**	**1.25**	**3.39**	**1.06**	**3.56**	**0.85**	**3.54**	**0.99**	**3.535**	**.015**
Factor 2: Planning for Environmental sustainability Social costs Total Mean score = 3.75										
Item 3	3.71	1.28	3.27	1.23	4.48	.93	3.34	1.44	7.625	.000*
Item 4	3.93	1.24	3.33	1.26	4.76	.50	3.76	1.24	10.745	.000*
Item 5	3.78	1.22	3.21	1.24	4.45	.83	3.68	1.45	7.773	.000*
Item 6	3.92	1.15	3.43	1.18	4.42	.66	3.54	1.34	6.710	.000*
Item 7	3.90	1.25	3.24	1.18	4.45	.71	3.12	1.52	11.361	.000*
Total FS	**3.85**	**1.11**	**3.29**	**1.07**	**4.52**	**0.51**	**3.49**	**1.09**	**9.19**	**.000***
Factor 3: Economic benefits Social costs Total Mean score = 3.64										
Item 8	3.85	1.20	3.35	.96	4.28	.81	3.73	1.28	5.335	.001*
Item 9	3.88	1.21	3.27	.94	4.12	.96	3.66	1.23	5.622	.001*
Item 10	3.61	1.25	3.10	1.10	4.18	.76	3.53	1.26	6.414	.000*
Item 11	3.69	1.17	3.14	.98	4.18	.76	3.59	1.23	6.937	.000*
Item 12	3.69	1.10	3.02	1.02	3.79	.78	3.39	1.26	6.705	.000*
Total FS	**3.75**	**1.01**	**3.18**	**0.76**	**4.11**	**0.57**	**3.58**	**0.94**	**11.12**	**.000***
Factor 4: Participatory Governance Social costs Total Mean score = 3.67										
Item 13	3.73	1.03	3.20	1.00	3.97	.88	3.55	1.28	5.181	.002*
Item 14	3.86	1.11	3.24	1.00	4.09	.80	3.83	1.04	6.689	.000*
Item 15	3.77	1.05	3.09	.94	4.24	.61	3.57	1.14	11.209	.000*
Item 16	3.79	1.04	3.03	1.02	4.33	.73	3.67	1.16	13.283	.000*
Item 17	3.67	1.09	3.05	1.09	4.21	.54	3.59	1.2	9.276	.000*
Item 18	3.73	1.08	3.06	1.09	4.04	.58	3.70	1.05	8.528	.000*
Item 19	3.80	1.09	3.16	1.15	3.97	.81	3.64	1.10	6.200	.000*
Item 20	3.86	1.0	3.32	1.26	4.52	.50	3.86	1.2	9.047	.000*
Total FS	**3.78**	**0.90**	**3.15**	**0.86**	**4.17**	**0.41**	**3.68**	**0.79**	**13.0**	**000***

Note: Items 1, 2 and 21 have been reverse coded and appear in *italics.*
* Significant difference among groups at p<.05. **Total FS**=Total Factor scores
† Item refers to the SUS-TAS statements shown in Table 5.8. Item 1 corresponds to statement 1 and so on.

As observed in the descriptive analysis, the findings of the ANOVA in Table 5.11 show high levels of agreement with statements such as, "I believe tourism development needs well-coordinated planning" (item 6), "The park's environment

must be protected now and for the future" (item 4), "Tourism in the park should bring new income to the community" (item 9), and "I believe tourism in the park should be a strong economic contributor to the community" (item 8). This high level of agreement with these statements reflect that stakeholders had a sound understanding of the three dimensions of sustainable tourism, that is economic, environmental, and participatory governance as compared to the social dimension. These results were consistent with previous tourism research findings in that the local communities linked their quality of life to environmental sustainability and perceived economic benefits from sustainable tourism practices (McCool & Martin, 1994; Perdue et al., 1990; Ko & Stewart, 2002; Yu et al., 2011; Vargas-Sanchez et al., 2009).

Tukey Post-hoc was performed to determine the significance in differences among the four stakeholder groups. A comparison of the responses of the four stakeholder groups in Table 5.11 shows that protected area authorities exhibited the highest level of understanding about sustainable tourism followed by local communities. The opinions of the local communities and protected area authorities were significantly different from those of the tourists and tourism enterprises for all the factors ($p = < 0.05$).

The protected area authorities followed by the local communities expressed the highest understanding about factor 2, "Planning for Environmental Sustainability", as reflected by their stronger agreement with the factor (M = 4.52 and 3.85 respectively) scoring highest agreement with item 4, "The park's environment must be protected" (M = 4.7 and 3.9) and items 6 and 7, "Tourism development needs well-coordinated planning" and, "Tourism plans should be continuously improved" (M = 4.4 and 3.9 for both items). The tourism enterprises (M = 3.49) and tourists (M = 3.29) exhibited the lowest mean scores for this factor. The protected area authorities expressed significantly higher understanding about factor 3, "Economic Benefits" and factor 4, "Participatory Governance", as reflected by their stronger agreement with all the items, followed by the local communities and tourism enterprises. Tourists exhibited a lower level of understanding for these factors.

The research found that the local communities and the protected area authorities had a higher understanding of sustainable tourism as a tool for economic

benefit for local communities. For every statement, the protected area authorities had the most positive perceptions followed by the local community, while the tourists had the least. This result is supported by previous studies where the government officials responsible for tourism management and planning had sufficient awareness of tourism impacts on destinations (Byrd et al., 2009). Other stakeholder groups seem to be aware of the costs and benefits from tourism but showed lower understanding compared to the protected area authorities.

5.5 Capacity for sustainable tourism

To assess the perceived capacity of the stakeholders for sustainable tourism development two different sub-scales were used for the two stakeholder groups, namely local communities and protected area authorities. The justification for using two different sub-scales was that it was perceived that each stakeholder group would have different types of skills requirements. This posed a limitation on the analysis as the differences in the perceptions of the stakeholders about their capacity and their perceptions about the capacity of other groups could not be assessed. However, evaluation of capacity from different points of views provided a whole picture about this factor and thus will assist in determining different dimensions of capacity based on the perceptions of different stakeholders.

5.5.1 Local community capacity for sustainable tourism

This analysis was carried out with local communities residing in the buffer zone of CKNP. As already mentioned in Chapter 4, the questionnaire was distributed to 155 convenient samples comprising community members living in the valleys around CKNP. A total of 100 surveys were completed and used in the analysis, representing a response rate of 65%. While the data did not represent all the valleys of CKNP proportionally, it had distributional representation qualities as valleys from each of the three districts, Gilgit, Skardu and Ghanchy, falling within CKNP were represented. Table 5.12 reveals the findings of the analysis using descriptive statistics. The results show that mean scores for all of the items were below 3.0, except for items 9, 11 and 17, indicating that the respondents had a low capacity level to engage in sustainable tourism.

Table 5.12: Frequency distributions and mean scores for CC-ST (N = 100)

	Statements	SD	D	A/D	A	SA	% A	M	SD
To what extent do you agree or disagree with each of the following statements please circle one									
1	I have the skills to produce tourism products	27	22	22	16	13	29	2.68	1.35
2	Local people are hired for tourism related jobs	30	15	17	29	9	38	2.73	1.38
3	I have the skills to market tourism products	27	34	22	15	2	17	2.35	1.05
4	Our community has strong and organized formal and informal subgroups and/or organizations	23	15	28	24	10	34	2.85	1.27
5	Our community is strong with effective conflict resolution skills	21	15	24	27	13	40	2.96	1.33
	I earn income by hosting tourists	35	18	21	23	3	26	2.43	1.25
Our community works as a partner with									
7	Our community works as a partner with the tourism organizations	18	38	37	5	2	7	2.37	.89
8	Our community works as a partner with park authority	16	24	47	8	5	13	2.64	.99
Our community has legal rights in the park resource use zone to: Please circle use									
9	Our community has legal rights in the park resource use zone to graze	14	10	35	26	15	41	3.21	1.21
10	Our community has legal rights in the park resource use zone to hunt	22	30	33	9	6	16	2.50	1.11
11	Our community has legal rights in the park resource use zone to collect fuel wood	12	13	42	25	8	33	3.07	1.07
12	I am able to use the above mentioned rights freely	17	22	34	17	10	27	2.85	1.18
Our community participates in meetings organized by the park authorities concerning: Please circle one									
13	Our community participates in meetings organized by the park authorities concerning tourism management planning of the park	31	26	34	7	2	9	2.27	1.02
14	Our community participates in meetings organized by the park authorities concerning management of the park	37	22	36	4	1	5	2.16	.99
15	Our community participates in meetings organized by the park authorities concerning Monitoring of the park	38	24	34	2	2	4	2.11	1.00
16	Our community participates in meetings organized by the park authorities concerning resource use in the park	30	23	36	8	3	11	2.36	1.07
To what extent do you agree or disagree with the following: Please circle one									
17	I feel that our community plays a major role in the conservation of the park	15	16	35	18	16	34	3.08	1.25
18	Tourism revenues from the park support community development projects	16	31	40	8	5	13	2.60	1.00
19	Tourism disrupts the village environment	23	33	29	13	2	15	2.41	1.03

Note: SD = strongly disagree; D= disagree; A/D= neither agree nor disagree; A = agree; SA= strongly agree. % A =Percentage agreement

Table 5.12 also shows the percentage of respondents selecting each response, and their total percentage agreement with each item. The responses varied from 4% (item 15) to 41% (item 9), with a mean score of 21.68%.

The two items that yielded the highest response rate were: item 5, “Our community is strong with effective conflict resolution skills” and item 9, “Our community has legal rights in the park resource use zone to graze”. Only 40% and 41% of the respondents agreed or strongly agreed with these statements. The results showed that the respondents had modest capacity for conflict resolution and were moderately aware of their resource use rights. From these findings it can be inferred that the respondents to a certain extent were involved in conflict resolution mechanisms and therefore perceived that they had the capacity to resolve conflicts. It seems that protected area authorities had not strictly prohibited grazing in the Park as the local communities felt they had a legal mandate to use the Park’s resources showing a sense of ownership to the land.

A large number of respondents neither agreed nor disagreed with the statements 9, 10, 11, and 12 (35%, 33%, 42% and 34% respectively) illustrating the resource use rights of local communities. This uncertainty could be attributed to the unawareness of the local communities about the laws and regulations linked to use rights and the absence of clear and defined property rights. The respondents exhibited the smallest percentage agreement for items 7 and 8 (7% and 13%) describing partnership with tourism organizations and park authorities, and items 13, 14, 15, and 16 (9%, 5%, 4% and 11%) representing their level of participation in planning, management, and monitoring. It seems that the local communities had not experienced any substantial interaction with the protected area authorities that reflected a participatory approach towards protected area tourism.

Consistent with the results of Aref (2011), the findings of the survey emphasized inadequate government support and lack of opportunities to get involved in planning and decision making for tourism development. These results indicate that communities are not sufficiently empowered to participate and reap sustainable benefits from tourism development.

Item 17, “I feel that our community plays a major role in the conservation of the park” exhibited a moderate level of agreement among the respondents (M = 3.08). One possible reason for this moderate level of agreement with the environmental dimension of sustainable tourism could be the local community’s sense of stewardship to the protected area where they perceived themselves to be the custodians of the protected area and understood the importance of conserving the

natural resource on which they depended. Given the opportunity, they could play a major role in its conservation. Item 19, "Tourism disrupts the village environment" generated a low mean score of 2.41. This low level of agreement could be attributed to the fact that the local community felt that the region had the capacity to accommodate more tourists.

Overall, relatively high percentage scores for 'neither agree nor disagree' in the questionnaire reflected the lack of awareness and knowledge of a large number of respondents about tourism and resource issues. This unawareness can be considered a barrier in the ability of the respondents to engage in tourism development. These findings are consistent with those of Tosun (2000), who states that a lack of awareness is a key barrier to effective communication for tourism development. Overall, it could be assumed from the results that there was a noticeable lack of appropriate community power and participation in tourism development. Lack of government support was a major issue in terms of tourism development.

5.5.1.1 Testing the community capacity scale for sustainable tourism (CC-ST)

Researchers have developed reliable and valid scales to measure residents' attitudes toward tourism and sustainable tourism (Choi & Sirakaya, 2005; Lankford & Howard, 1994; Madrigal, 1993). However, there are very few studies that investigate community capacity for sustainable tourism. This study developed and validated the Community Capacity for Sustainable Tourism Scale (CC-ST) as a subjective indicator of residents' perceptions about their capacity for sustainable tourism. It is hoped that the CC-ST provides a practical framework with which community capacity could be assessed for sustainable tourism development.

To test the reliability and validity of the scale, EFA using principal components analysis (PCA) with a varimax rotation was performed on the 19 items to identify the dimensions of the CC-ST. The 9 items factored into five dimensions are shown in Table 5.13.

The five factors accounted for 72.341% of the original variance (Table 5.13). Visual inspection of the items contained in each factor in Table 5.13 further suggested that the set of items portrayed in each dimension fitted reasonably well together, except for item 10 in dimension 3.

Table 5.13: Exploratory factor analysis of CC-ST items, (n = 100)

#	FACTORS	1	2	3	4	5
	Participatory development Skills					
1	I have the skills to produce tourism products	**.771**	.362	.009	.139	.100
3	I have the skills to market tourism products	**.688**	.072	.089	.335	.009
4	Our community has strong and organized formal and informal subgroups and/or organizations	**.864**	.190	.080	.082	.079
5	Our community is strong with effective conflict resolution skills	**.821**	.117	.138	.017	.161
7	Our community works as a partner with the tourism organizations	**.584**	.370	.028	.076	.252
8	Our community works as a partner with park authority	**.719**	.090	.075	.105	.383
	Community sense of ownership					
9	Our community has legal rights in the park resource use zone to Graze	.031	.161	**.861**	.281	.096
11	Our community has legal rights in the park resource use zone to Collect fuel wood	.014	.077	**.935**	.133	.112
12	I am able to use the above mentioned rights freely	.212	.160	**.793**	.271	.003
	Economic opportunities					
2	Local people are hired for tourism related jobs	.404	.165	.215	**.721**	.101
6	I earn income by hosting tourists	.308	.061	.181	**.657**	.082
10	Our community has legal rights in the park resource use zone to Hunt	.293	.245	.377	**.646**	.081
	Decision-making					
13	Our community participates in meetings organized by the park authorities concerning Tourism management planning of the park	.020	**.838**	.011	.141	.197
14	Our community participates in meetings organized by the park authorities concerning Management of the park	.049	**.906**	.017	.164	.065
15	Our community participates in meetings organized by the park authorities concerning Monitoring of the park	.186	**.891**	.076	.123	.122
16	Our community participates in meetings organized by the park authorities concerning Resource use in the park	.172	**.819**	.047	.220	.210
	Socio-ecological empowerment					
17	I feel that our community plays a major role in the conservation of the park	.204	.054	.154	.027	**.710**
18	Tourism revenues from the park support community development projects	.082	.117	.237	.055	**.734**
19	Tourists disrupt the village environment	.004	.064	.351	.219	**.623**
Cumulative % = 72.341						

The five factors were labelled as follows: factor 1 = participatory development skills (six items); factor 2 = community sense of ownership (three items); factor 3 = socio-economic opportunities (three items); factor 4 = decision-making (four items); factor 5 = socio-ecological empowerment (three items). The domain descriptors, the number of items in each domain, corresponding alpha reliability coefficients, Eigenvalues, and the result of KMO and Bartlett tests are shown in Table 5.14. The KMO measure of sampling adequacy was .70, which is

considered good for the factor analysis. The result of Bartlett test was significant at the .01 level.

Table 5.14: Eigenvalues, variance explained, and Cronbach's alpha of CC-ST factors

Factor	Number of items	Eigenvalues	Variance (%)[a]	α	Mean scores
Participatory development Skills	6	4.769	20.278	.858	2.64
Community sense of ownership	3	3.407	18.350	.853	3.04
Economic Opportunities	3	2.382	14.302	.294	2.55
Decision-making	4	1.815	9.770	.904	2.23
Socio- ecological empowerment	3	1.372	9.641	.547	2.70

Note: Kaiser-Meyer-Olkin measure = .705; Bartlett's test = 1251.411 (p = .000).

The reliability of a scale indicates how free it is from random error. A frequently used indicator of a scale's reliability is its internal consistency. According to Pallant (2011, p. 6), "Internal consistency is the degree to which the items that make up the scale are all measuring the same underlying attribute". The most commonly used measure of internal consistency is Cronbach's coefficient alpha (Pallant, 2011). It provides an indication of the average correlation among all of the items that make up the scale. Values range from 0 to 1, with higher values indicating greater reliability (Pallant, 2011). A score of .7 or higher is desired reliability, while .6 or higher is an acceptable reliability coefficient for research at the early stage of the scale development (Nunnally & Bernstein, 1994).

Cronbach's alpha coefficients for individual CC-ST items ranged from 0.717 (lowest) to 0.760 (highest) with a total scale reliability of .774. This indicates that the variables exhibited a strong to moderate correlation with their factor grouping and thus were internally consistent. When the items within each factor were tested for reliability using Cronbach's alpha coefficients, factors 1, 2 and 4 produced high scores (factor 1 = .858; factor 2 = .853 and factor 4 = .904). Factors 3 and 5 had low Alpha scores (factor 3= .294; factor 5 =.547). When item 10 was deleted from factor 3, the Cronbach's alpha increased to .737 with a factor loading of .64, which is considered good. Therefore item 10 was deleted from the scale.

5.5.2 Protected area authorities' capacity for sustainable tourism

Protected area authorities are the key actors in sustainable tourism management in CKNP, as they have the strategic role in planning, management, regulation, service provision and local communities interface. A sub-scale, Protected Area Authorities Capacity for Sustainable Tourism (PAC-ST), was designed to explore the perceptions of the protected area authorities about their capacity to integrate tourism with protected area management, conduct participatory planning, coordinate with other stakeholders such as local communities and tourism enterprises, and generate revenues for conservation and social development. The questionnaire included a number of variables relating to participatory planning, availability of resources, involvement with other stakeholders and availability of skills required for protected area tourism management. The survey instrument was tested with 33 protected area authorities' officials.

Table 5.15 illustrates the findings of the analysis using descriptive statistics (mean and standard deviation). It contains the mean values obtained for each item for the entire sample. By using mean scores, it was found that generally the capacity of protected area authorities to engage in tourism development was moderate. Table 5.15 also shows the response frequency distribution for the data set in terms of percentage of respondents selecting each response and their total percentage agreement with each item. The responses varied from 15.2% (item 15) to 69.7% (item 1), with a mean percentage score of 47.05%.

Items 15 and 17 were reverse coded. The item with the lowest response was item 15. Since item 15 was reverse coded a low score meant low acceptance. Only a small percentage (15.5 %) of the respondents agreed that they had inadequate funds and technical support for park management. It seems the park authorities were satisfied with the funding that was available to them for the management of the park. The other two items that yielded the next lowest agreement were items 5 and 6 (27.4 and 39.3 respectively): "The income generated from tourism covers the conservation costs and social development costs of the community". This low agreement reflected the inability of the protected area authorities to generate adequate income from tourism related activities for protected area management. In contrast, item 11, "The park authority has the expertise for park personnel training in eco-tourism", item 19, "The park authority has enough funds to develop appropriate visitors facilities" and

item 16, "The PA authority has sufficient technical support for the management of tourism in the park" yielded a relatively high response (60.6%, 54.6%, and 51.5%).

Table 5.15: Frequency distributions and mean scores for PAC-ST scale (N = 33)

#	statement	SD	D	A/D	A	SA	% agreement	M	S Dev
The park authority has the capacity to enhance the community's									
1	Environmental awareness	0.00	12.1	18.2	39.4	30.3	69.7	3.88	.992
2	Leadership skills	6.1	33.3	18.2	36.4	6.1	42.5	3.04	1.096
3	Conflict resolution skills	6.1	15.2	27.2	39.4	12.1	51.5	3.40	1.086
4	Business skills	6.1	33.3	24.2	30.3	6.1	36.4	2.99	1.084
The income generated from tourism covers the									
5	Conservation costs of the park	12.1	21.2	39.4	18.2	9.1	27.3	2.91	1.128
6	Social development costs of the community	12.1	12.1	36.4	30.3	9.1	39.4	3.11	1.133
The park authority has the expertise for park personnel training in									
7	Spatial data analysis	6.1	15.2	36.3	30.3	12.1	42.4	3.28	1.065
8	Land use planning	3.0	21.2	30.3	30.3	15.2	45.5	3.35	1.079
9	Financial management	3.0	9.1	30.3	42.3	15.1	57.4	3.57	.968
10	Human Resource management	0.0	12.1	27.2	45.4	15.2	60.6	3.62	.902
11	Ecotourism	6.1	9.1	24.2	48.5	12.1	60.6	3.53	1.052
12	Ecological research and monitoring	3.0	21.2	24.2	36.4	15.2	51.6	3.39	1.088
13	Performance evaluation	3.0	15.2	24.2	45.4	12.1	57.5	3.48	1.003
To what extent do you agree or disagree with the following statements?									
14	The park authority has qualified park staff to carry out participatory planning processes	6.1	21.2	21.2	42.4	9.1	51.5	3.27	1.098
15	*The PA authority has a lack of funds and equipment for the management of the park*	*0.0*	*15.2*	*18.2*	*36.4*	*30.3*	*15.2*	*3.82*	*1.044*
16	The PA authority has sufficient technical support for the management of tourism in the park	3.0	21.2	24.2	36.3	15.2	51.5	3.39	1.085
17	*The PA authority has external economic pressures, such as pressures to exploit the resources of the protected area*	*15.1*	*33.3*	*24.2*	*21.2*	*6.1*	*48.4*	*2.70*	*1.179*
18	The PA authority has strongly developed communications with the public and other stakeholders	9.1	30.3	30.3	18.2	12.1	30.3	2.94	1.195
19	The park authority has enough funds to develop appropriate visitors facilities	18.2	21.2	6.1	9.1	45.5	54.6	3.42	1.658
	Total score						47.05		

Note: Items 15 and 17, appearing in *italics,* have been reverse coded and high mean value means high acceptance.

There was a dichotomy in the above responses, as despite the capacity for ecotourism the protected area authorities were not gaining any substantial financial gains from tourism. This low revenue generation from tourism could be attributed to the fact that tourism was not significantly integrated as part of a wider protected area management system. It could be inferred that although the protected area authorities perceived they had high tourism management capacity and technical support and enough funds for visitors' facilities, Item 9, "The park authority has the expertise for park personnel training in financial management" also elicited a moderately high level of agreement (57.4%).

The respondents agreed that the park had financial management skills. Similar to the above findings, it seems the protected area authorities were confined to a basic financial management system limited to salary distribution, balance sheets and statements of profits-as opposed to seeking opportunities for taking and executing strategic decisions for effective use of available funds to make profitable investments in ecotourism and developing measurable standards for financial performance.

For Item 17 that was reverse coded, 48.8% of the respondents agreed that the park authorities were facing external pressures for economic gains such as illegal hunting and deforestation from powerful groups. The above results give the impression that the protected area authorities had adequate funding but did not have enough power to stop these external pressures on the park. In terms of management effectiveness, the discrepancy between the availability of funds and the actual actions to protect and manage the park effectively using those funds reflects the inadequacy of managerial authority.

Another interesting finding was the inconsistency of responses for items 1, 14 and 18 that depicted the elements of participation and coordination. Item 1, "The park authority has the capacity to enhance the community's environmental awareness" exhibited the highest percentage of agreement (69.7%). Similarly 51.5% of the respondents agreed or highly agreed with the statement in item 14, "The park authority has qualified park staff to carry out participatory planning processes". On the contrary there was moderately low agreement (30.3%) for item 18, "The protected area authorities have strongly developed communications with the public and other stakeholders".

The low percentage score for item 18 could be attributed to the absence of formal communication and participation mechanisms between the protected area authorities and other stakeholder groups. The moderate agreement for item 14 revealed the differing viewpoints among protected area authorities' respondents. As mentioned above, it could be possible that the list of direct questions in the questionnaire prompted some of the respondents to place greater levels of importance on their capacity levels. This discrepancy between the capacity for participatory planning and awareness raising and the actual actions taken to initiate these processes suggests that their perceived capacity was not supported by a stipulated and practical participatory planning process. The protected area tourism management planning seemed to be an evident weakness of the protected area authorities.

The respondents moderately agreed (51.6%, 57.5%) with Items 12 and 13, "The park authority has the expertise for park personnel training in ecological research and monitoring and performance evaluation".

5.5.2.1 Testing the protected area authorities capacity for sustainable tourism scale (PAC-ST)

To test the reliability and validity of the Protected Area Authorities Capacity for Sustainable Tourism Scale (PAC-ST), exploratory factor analysis (EFA) using principal components analysis (PCA) with a varimax rotation was performed on the 19 items to identify the dimensions of the scale. The 19 items factored into four dimensions are shown in Table 5.16. Four factors accounted for 76.095% of the original variance (Table 5.16). Visual inspection of the items contained in each factor in Table 5.16 further suggested that the set of items portrayed in each dimension fitted reasonably well together.

The four factors were labelled as follows: factor 1 = planning and management (ten items); factor 2 = skills and resources (four items); factor 3 = cooperation and coordination (three items); and factor 4 = awareness and information (two items). The KMO measure of sampling adequacy was .70, good for the factor analysis; and the result of Bartlett tests were significant at the .01 level. Cronbach's alpha coefficients for individual factors ranged from 0.888 (lowest) to 0.917 (highest) with a total scale reliability of .902. This indicates that the variables exhibited a strong correlation with their factor grouping and thus were internally consistent.

Table 5.16: Exploratory factor analysis of PAC-ST scale items, (N = 33)

Factors	1	2	3	4	*a*
Planning and management					
Q5 Conservation costs of the park	**.584**	.567	.090	.052	.891
Q7 Spatial data analysis	**.711**	.553	-.003	-.151	.890
Q8 Land use planning	**.824**	.436	.118	-.013	.888
Q9 Financial management	**.638**	.532	-.291	.244	.896
Q10 Human Resource management	**.652**	-.016	.544	.285	.896
Q11 Ecotourism	**.876**	-.058	-.076	.069	.898
Q12 Ecological research and monitoring	**.871**	.173	.268	.102	.890
Q13 Performance evaluation	**.839**	.214	-.047	-.142	.894
Q14 The park authority has qualified park staff to carry out participatory planning processes	**.786**	.233	.265	-.053	.891
Q16 The PA authority has sufficient technical support for the management of tourism in the park	**.762**	.046	-.047	-.152	.898
Skills and resources					
Q2 Leadership skills	.229	**.877**	.128	.067	.894
Q3 Conflict resolution skills	.143	**.895**	.087	-.107	.896
Q4 Business skills	.273	**.872**	-.010	-.005	.895
Q15 *The PA authority has a lack of funds and equipment for the management of the park*	-.216	**.522**	.327	.173	.906
Cooperation and coordination					
Q6 Social development costs of the community	.215	.493	**.652**	.150	.895
Q17 *The PA authority has external economic pressures, such as pressures to exploit the resources of the protected area*	-.193	-.120	**.823**	-.102	.913
Q18 The PA authority has strongly developed communications with the public and other stakeholders	.202	.203	**.826**	-.001	.899
Awareness and information					
Q1 Environmental awareness	.258	.363	.443	**.572**	.898
Q19 The park authority has enough funds to develop appropriate visitors facilities	.176	.062	.071	**.823**	.917
mulative % = 76.095					

Note: Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .555.
Bartlett's Test of Sphericity=593.208. Level of significance (p=.000)

5.6 Summary of results

This chapter fulfilled its two major purposes: i) It examined the perceptions of different stakeholder groups about their interest in the environment and their understanding and capacity for sustainable tourism; and ii) It investigated key environmental orientations and sustainable tourism development dimensions from the perspectives of tourism stakeholders by employing factor analysis. A survey questionnaire with four sub-scales was used to measure the three research questions relating to interest in the environment and understanding and capacity for sustainable tourism of the four stakeholder groups.

Exploratory factor analysis (EFA) using principal components analysis was performed on all the four sub-scales to obtain the key factors for each sub-scale: New Ecological Paradigm Scale (NEP), Sustainable Tourism Attitude Scale (SUS-TAS), Community Capacity for Sustainable Tourism Scale (CC-ST) and Protected Area Authorities' Capacity for Sustainable Tourism Scale (PAC-ST). The four sub-scales were found to be valid and reliable to measure the three different constructs: interest in the environment, understanding of sustainable tourism, and capacity for sustainable tourism. The factors in each sub-scale reflected the environmental orientations of the stakeholder groups and underscored the key dimensions that stakeholders perceived to be important to commence the process of sustainable tourism.

Furthermore, differences in the perceptions of the stakeholders groups were determined for the first two sub-scales. The findings of the analysis showed that there were significant differences among the four stakeholder groups regarding their interest in the environment and their understanding about sustainable tourism. The other two sub-scales measured the capacity of two stakeholder groups (local communities and protected area authorities) for sustainable tourism. The findings indicated a low to moderate capacity level of local communities and protected area authorities to engage in protected area sustainable tourism.

CHAPTER 6

Barriers and Opportunities for Sustainable Tourism

6.1 Introduction

The previous chapter analysed the quantitative data which was informed by different theoretical perspectives and human-environment interpretation. This chapter outlines and discusses the results of the qualitative data analysis. As mentioned in Chapter 4, the data in this chapter was collected using three methods: document analysis, interviews, and focus group discussions.

The purpose of adopting the qualitative method was to answer the fourth research question: *What are the barriers and opportunities for sustainable tourism development in the protected area?* It focused on achieving a greater understanding of the perception of stakeholders about sustainable tourism and the barriers and opportunities that could influence the development of a sustainable tourism management system in the Park. Another objective was to triangulate the qualitative analysis with the quantitative analysis to determine the validity of the research findings. The questions in the interview guide shown in Appendix 3 were linked to the three research questions explored in the quantitative analysis in Chapter 5.

This chapter is divided into four sections. Section 6.2 provides an analysis of the documents and publications that were reviewed for greater understanding of the present policy and management situation of the Park and how it has affected the development of interrelationships among different stakeholders. Section 6.3 provides an analysis of the perceptions of stakeholders about sustainable tourism. The barriers and opportunities for sustainable tourism development and the extent to which the principles of sustainable development and stakeholder cooperation are incorporated in CKNP management are discussed in section 6.4. Finally, section 6.5 briefly summarizes the findings of the qualitative analysis.

The researcher realizes that protected area tourism cannot be spatially confined to the boundaries of CKNP. The protected area system is interlinked with

the larger social-ecological system and its status represents the entire Gilgit-Baltistan region. Therefore, it was viewed in a wider context as the discussions with the stakeholders could not be contained within the Park boundaries. It is acknowledged in qualitative research that the researcher and participants' interactions, and personal views and values of the researcher, can impinge on the interpretation of the results. A conscious effort has been made by the researcher to remain neutral to avoid moderator bias (Kidd & Parshall, 2000). As specified in Section 4.4.1, for the purpose of this research, the term 'local communities' is used in a wider perspective and includes buffer zone communities, local residents living in the Gilgit-Baltistan region and local tourism enterprises. Similarly, the term *protected area authorities* includes all the provincial government departments that are involved in the management of the protected area. These include: Forest and Wildlife Department Gilgit-Baltistan, CKNP Directorate, Tourism Department Gilgit-Baltistan and Environmental Protection Agency Gilgit-Baltistan.

6.2 Document analysis

The researcher carried out extensive document analysis prior to the fieldwork. The analysis included policy documents on protected areas, protected area management plans, websites of international NGOs working in Gilgit-Baltistan and their reports related to projects in CKNP, previous research studies in Gilgit-Baltistan, especially CKNP, and documents relating to the wider sustainable tourism literature. This analysis allowed the researcher to gain an understanding of local contexts and historical relationships between protected area authorities, local communities, and other stakeholders. Further, it helped develop the researcher's understanding of the realities confronting the local communities living adjacent to the protected area and their experiences with protected area authorities.

6.2.1 Availability of reliable data and information sharing

An important aspect that came out of the document analysis was related to the availability and reliability of data. The documents and reports reviewed did not have sufficient and reliable data. Many public documents acknowledged lack of research and access to and usability of data as the main issues to set the standards for future

initiatives (FAO, 2009; GOP, 2010; Hagler Bailly Pakistan, 2010; Hagler Bailly Pakistan, 2005b; Nawaz et al., 2009)

It was disclosed in Naureen's (2009) research on the development of environmental institutions and laws that quantified limits and standards are missing in Pakistan's environmental legislation, which make these laws ineffective and difficult to enforce. By not specifying any standards, the laws become an impediment to both regular enforcement and voluntary public compliance. Similarly, there are numerous instances in the studies on CKNP (Hagler Bailly Pakistan 2005a & b; Nawaz et al., 2009) that point to this inadequacy of data and how it is affecting policy and management decisions for biodiversity and tourism management. Table 6.1 reflects the gaps in data mentioned in various documents.

Another issue identified in the document analysis was related to accessibility and sharing of information. The major issue within the government departments appeared to be their obligation in terms of accountability and transparency to the public. Citizens do not have adequate access to information. No special efforts are made to enable the citizens to access information, nor do mechanisms exist for ensuring that the agencies share information proactively. Most of the decision-making remains shrouded in mystery (Cyan & Latif, 2003). This culture of concealing and holding back information was linked to the government's level of obligation and commitment to being accountable to themselves and to the public. No systems have been established to encourage government agencies to share information proactively, either among themselves or with the general public. As a result of these factors, transparency is limited (IUCN, 2003).

One of the key principles of corporate governance outlined by the Organization for Economic Co-operation and Development (OECD, 2004) is disclosure and transparency. The above statements reflect a major flaw in the protected area governance system related to information disclosure and knowledge management (availability and sharing of data) which is also one of the key aspects of participatory governance. There is no indication of formal information channels with the public such as government annual reports and other informal channels such as regular meetings, being in place. If made available such information could not only enhance stakeholders' confidence and ability to make informed decisions but could help improve transparency and government performance.

Table 6.1: Document analysis related to data issues

Gaps in data	Evidence
CKNPs biodiversity	*The foremost issue in the management of the CKPA's (CKNP) biodiversity is scarcity of quantitative data on species status and distribution (Hagler Bailly Pakistan, 2005a, p. 5-2).*
	Substantial periodic data is required to determine population dynamics in ungulate species (Nawaz et al., 2009, p. 80).
	The Central Karakorum area is one of the last great-unexplored areas of Pakistan where biodiversity has never been evaluated systematically. Extensive empirical data is therefore required to draw a concrete baseline of the area (Hagler Bailly Pakistan, 2005b, p. 2-2).
Data on tourism	*Data on the local adventure tourists is not available (IUCN Pakistan, 2010. p. 3-6.).*
	Relevant data is to be collected from the tourists and other locals that are in the tourism business, i.e., hotel owners, tour operators, transporters and guides (Hagler Bailly Pakistan, 2005a, p. 6-8).
	Non availability of data is the biggest problem and hurdle in finalizing any tourism planning and strategy as no authenticated data is available. Certainly non-existence of data delays the timely management decisions and eventually causes revenue loss (Imam, 2007, p. 22).
	A sound research and statistical base is essential to improve the tourism sector's competitiveness and to make informed public policy decisions. However, information gaps have been identified within the current statistical collections. These include regional demand and supply side data and forecasts, and tourism yield data at national and provincial levels (GOP, 2010, p. 9).
	In the absence of reliable and detailed data, it is difficult to draw conclusions about trends in the tourism sector in the Northern Areas (Now Gilgit-Baltistan). There are no special mechanisms in place to help facilitate the acquisition of data or information by the region's citizens (IUCN, 2003, p. 15).
	Planning and policy formulation in any sector, without authentic data, is very difficult and it is almost impossible in tourism sector. Unfortunately statistics such as: number of tourists (domestic + international) visiting different districts, valleys, tourist spots etc. in Northern Areas; number of tourist classified age wise, activity wise etc.; number of tourists using different categories of tourist services e.g. hotels, tour operators, transport etc. is not available. This results in tourism planning which does not reflect the ground realities. (Ahmed, 2003, p. 12).
	…no specific conclusions can be drawn about the tourism sector in Northern Areas in the absence of Northern Areas specific tourism data. One thing is evident from huge difference between the tourism revenue calculated by the State Bank Pakistan and the WTO/UNDP Team – There are serious shortcomings in the current data collection mechanisms, which need to be rectified urgently (Ahmed, 2003, p. 15).
Data on forests and associated sectors	*In the absence of specific data on forests, the above table is mainly based on assumptions (FAO, 2010, p. 18).*
	No data is available about the characteristics of forests and other wooded lands (FAO, 2010, p.20).
	No data available on forest establishment and reforestation (FAO, 2010, p. 22).
	No data are available for public revenue collection." (FAO, 2010, p. 50).
General data concerns	*The situation is especially problematic in a region such as the Northern Areas (Now Gilgit-Baltistan), which is characterized by a dearth of reliable, up-to-date baseline information and severe constraints on data collection (IUCN, 2003, p. 80).*
	If these data gaps remain unfilled, the credibility of the entire assessment system will be undermined (IUCN, 2003, p. 82).

6.2.2 Inadequate policy and legislation for protected areas

The document analysis also revealed gaps in policy and legislation. Some of the government policy documents were either not in place, for instance, the protected areas and tourism policy for Gilgit-Baltistan, or were not as yet approved, for instance, the tourism policy (GOP, 2010) and the CKNP management plans (Hagler Bailly Pakistan, 2005; Nawaz et al., 2009). These issues were documented as follows:

> *Although the Northern Areas Administration has notified Northern Areas Tourism Development Board as a policy-making forum, the Northern Areas Tourism Policy – prepared by Northern Areas Tourism Development Board – is still in the unapproved draft form (Ahmed, 2003, p. 11).*

Also the draft management plans of CKNP, including the tourism management plan and the Northern Area Strategy for Sustainable Development, which included a large section on sustainable tourism development, were not backed up by any government policy as these policies are still not in place. This issue is evident from the following quotes:

> *It is imperative that every region with its own distinctive requirements should have its own decentralized tourism policy formulation mechanisms, in line with the specific requirements of the area, within the broad framework of Federal policy (Ahmed, 2003, p. 29).*

> *There is an urgent need for policy formulation, planning and implementation at the local level, in consultation with all the stakeholders in Northern Areas. The disadvantage of centralized policy making system is that many issues do not get proper attention because they may not seem to be important in the broader perspective, but may be vital in the context of specific area (Ahmed, 2003, p. 11).*

The Northern Areas Strategy for Sustainable Development clearly depicts the issues that surface in the absence of a regional tourism policy. Tourism development, however, has been hampered by the lack of policy guidelines, insufficient

investment, inadequate tourism infrastructure, insufficient human resource development and weak marketing (IUCN, 2003).

Despite the Northern Areas' rich mix of natural and cultural heritage, tourism development has been significantly constrained by a variety of factors. These include: the lack of clear, locally-derived policy guidelines; insufficient investment in tourism development; inadequate tourism infrastructure; insufficient human resource development; and the absence of an overall marketing strategy with coordinated product and image development (IUCN, 2003).

Protected area management plans play an important role in effective governance by holding decision makers accountable to the public (Dearden, et al., 2005). However, the CKNP management plan was still a paper plan as it was not approved. Furthermore, there were no legal clauses mentioned in it that showed that it was based on any legislative or policy directive that would make them legally bounding for protected area authorities to follow and complete the initiatives set down in the plan. It emphasized the importance of community participation, but was not backed up by any legal requirement for public participation in the formulation and implementation of the plan.

6.2.3 Gaps in theory and practice of sustainable protected area tourism

Little evidence was found in government documents that sustainable tourism represented a well-articulated strategic priority. The term 'sustainable development' was not even mentioned once in the protected area legislation (Wildlife Act, 1975).

Furthermore, the legislation is based on management concepts that do not take into account the interrelationships between the protected areas and the local communities. For instance, there is no legislative framework governed by the Northern Areas Wildlife Preservation Act 1975 that accommodates regulated traditional resource use within the national parks. It completely ignores the presence of a large resident community that has usufructuary rights in the protected areas and this aspect has not been addressed at the policy and management level.

On the other hand, the document analysis revealed that international and national NGOs have been a major source of innovative thinking about how CKNP resources and biodiversity should be managed and the environment protected. This is

evident from the two vision statements given in the documents for CKNP that were developed by the IUCN:

> *A resilient, sustainable and co-managed landscape delivering ecological and economic services, equitably benefiting nature, culture and people (IUCN, 2010, p. 4-1).*

> *A place where the traditional owners, i.e., the local communities, and the NAFWD staff manage the area together to the highest possible standard to conserve the natural and cultural heritage, and encourage tourists to understand, appreciate, and enjoy the Park (IUCN, 2010, p. 4-1).*

These NGOs taking the government in confidence have encouraged and facilitated alternate management approaches to CKNP specifically focusing on tourism. The NGOs' project interventions and aims reflect a shift from the traditional fence approach to protected area management to a more participatory approach for sustainable development.

However, the information provided on the websites of these various projects undertaken by different international NGOs in collaboration with the Gilgit-Baltistan government (SEED, 2010; WWF, 2012; HKKH, 2007) identify enormous conservation and sustainable development challenges and threats faced by the ecosystem in CKNP, as mentioned in Chapter 3. These reports do not support their claims with hard data that shows the actual status of these threats.

These issues are very well encapsulated in the Northern Areas Strategy for Sustainable Development background paper on sustainable tourism and cultural heritage:

> *There were constraints to developing these Background Papers and in some cases these hurdles were only partially overcome. These included the fragmented and scattered nature of information, the prevalent culture of not sharing information, contradictory and unreliable data, lack of thinking on cross-sectoral linkages and integrated planning, and lack of expertise in developing linkages with the environment (Ahmed, 2003, p. viii).*

Despite being aware of these gaps in information, the NGOs have not taken any measures to address these challenges through a participatory strategic planning process before implementing these projects. Another issue, as mentioned in the above quote, which is quite apparent in these projects, is that they only claim to apply an integrated collaborative approach to promote sustainable management options for CKNP. In reality, however, this participatory approach only includes the government and international NGOs and development agencies, and falls short of including the local communities and the local entrepreneurs at the design and planning stages as key stakeholders.

The IUCN document on studies and recommendations on the preparation of a CKNP management plan (Hagler Bailly Pakistan, 2005b) mentions that the tourism industry has not shown sufficient willingness to internalize the cost of conservation of biodiversity in, for instance, protected areas, even though they can profit from it. The report, however, fails to mention the reasons for this unwillingness on their part. The document analysis shows that none of the CKNP projects and planning interventions have included such policy and management issues as part of their agenda or involved local tourism enterprises to resolve the issues of environmental valuation and compensation. In other words, tourism enterprises have not been made part of the planning process for tourism in CKNP/Gilgit-Baltistan as key partners and decision makers.

A relatively small number of people living in the buffer zone are involved in the tourism-based economy. Although those who are involved have traditional knowledge and skills, they do not have adequate capacity and understanding of how to diversify their economic base. Very often the international funding organizations, which are contributing millions to develop a sustainable management system for CKNP, tend to overlook the status of social capital and inclusion of these issues (Hagler Bailly Pakistan, 2005a). The local stakeholders, though considered by these projects as the main beneficiaries, become secondary in terms of their participation and role in policy and management decisions.

The activities of these projects, therefore, have focused more on ad hoc interventions that are not based on a sound planning process, which is only possible with the availability of adequate benchmark information and data. It appears that none of these projects during their planning stage developed social, economic and

environmental indicators and benchmarks through community participation to monitor progress or to incorporate these indicators to assess the environmental and social impacts of tourism.

6.2.4 Tourism issues in CKNP

The Ecotourism Development Plan (IUCN, 2010), which forms part of the protected area management plan developed by the IUCN for CKNP, represents a significant shift away from traditional tourism development. The Framework for Development of Tourism mentioned in the CKNP Management Plan recognizes *staging CKNP as*:

> *An ideal tourism destination for eco, adventure and cultural tourism…. Promotion and management of tourism to generate revenue both for locals and CKNP management on sustainable basis (IUCN, 2010, p. 4-1).*

Although the tourism plan gives high priority to enhancing local livelihoods through tourism in CKNP, it falls short of providing a framework for evolving a participatory governance structure that would assist local communities' participation in policy, planning, and decision-making. In addition, the action plan does not clarify who would play the leadership role to advance the collaborative tourism process nor does it specify the contribution and responsibilities of different stakeholder groups within the collaborative management structure. Similarly, the draft tourism policy (2010) only mentions in a cursory manner the tourism sector and the protected area authorities as the key players in tourism development:

> *The tourism sector and protected area managers are natural partners in the protection of the environment, for its presentation to the broader community, and for the generation of resources to facilitate sustainable management practices (GOP, 2010, p. 18).*

However, at present there is little interaction of the Gilgit-Baltistan Tourism Department with the CKNP Directorate. This absence of interaction is reflected on the website of the tourism department, which does not mention CKNP at all, let alone as a prime tourism destination in Gilgit-Baltistan.

Three more major policy issues identified during the document analysis relate to leakage of funds, centralized system, and regulations in tourism, and are well captured in the following quotes:

> *Ministry of Tourism Islamabad is responsible for overall policy formulation and implementation of tourism related rules and regulations. It grants mountaineering and trekking permits for Northern Areas, conducts briefing/debriefing of foreign tourists, collects royalties, controls the licensing of tourism services and compiles tourism statistics (Ahmed, 2003, p. 25).*

> *There are no regulations for quality control and ensuring the standards of services offered by tourism businesses (Ahmed, 2003, p. 11).*

The focus of the document analysis was to understand how policy and management interventions have influenced and have implications on the concept of an integrated systems approach to sustainable tourism in CKNP. The document review proved to be a useful fact finding technique to explore how the complex protected area tourism system was functioning in CKNP. It pointed towards two main governance issues that underpinned the development of sustainable tourism in Gilgit-Baltistan. These were:

Absence of transparency and accountability: A key component that promotes transparency and accountability is effective access to information. This is considered a vital tool in promoting participatory governance as information sharing assists the stakeholders to effectively engage in the design, implementation and evaluation of management process and performance assessment (AusAID, 2006; UNDP, 2006). To build transparency free flow of information was not accessible to the CKNP stakeholders.

Integrated planning and management for sustainable tourism as a strategic priority: The lack of coordination and cohesion among the stakeholders groups was another key issue impeding inter-organizational collaboration and continuous integrated protected area planning for tourism development. This was because the CKNP had neither an integrated protected area tourism policy nor did the stakeholders have the capacity and motivation to encourage a collaborative planning

process that could improve trust, confidence and mutual understanding among these stakeholders and reduce inefficiencies that are derived from 'go-it-alone' policies (Dredge et al., 2011; Jamal & Getz, 1995).

To support the findings of the document analysis in-depth interviews and focus group discussions were conducted. The following sections are devoted to the findings derived from interviews and focus group discussions.

6.3 Perceptions of sustainable tourism

One of the questions included in the interview guide encouraged the participants to share, from a personal perspective, their views about sustainable tourism development in CKNP. Letters were used as each stakeholder group's identifiers. In particular, "PA" was for protected area authorities, "LC" for local communities, "TR" for tourists, "TE" for tourism enterprises and "NGO" for non-government organizations.

Interviewees were asked if they understood the term "sustainable tourism". All five protected area authority respondents declared they knew what it meant. Twelve out of 15 members of local communities interviewed stated they recognized the term. Only two of the tourism enterprises said they were familiar with the term, while the remaining six had either no recognition of the term or had never heard the term before.

The stakeholders who were familiar with the concept of sustainable tourism attached different meanings to it. The majority of the participants from the protected area authorities and NGOs group considered all the three dimensions of sustainability (social, economic and environmental) equally important in the concept of sustainable tourism. As one protected area authority respondent noted:

> *Sustainable tourism makes low impact on environment and local culture, and provides more recreational facilities to tourists and opportunities of revenue generation to the locals, with no harm to the natural beauty and wilderness of the area (PA 5).*

Another respondent from an NGO viewed it as:

Tourism that promotes livelihood opportunities for the local population without degrading the natural environment and resources (NGO 2).

The fact that sustainable tourism is an evolving and emerging concept for local communities and tourism enterprises in Gilgit-Baltistan may explain the vagueness of the term "sustainable tourism" for these stakeholders. Nearly 20% of local community members and 75% of the tourism enterprises who were interviewed were not familiar with the term "sustainable tourism" or did not know it by this terminology; but when the concept was explained to them they could relate to it and agreed that it should be put in place. One reason why local community members were more familiar with the term sustainable tourism could be the presence of a large number of international and local NGOs involved in sustainable community and social development projects in Gilgit-Baltistan at village level. On the other hand, the tourism enterprises are located in the big cities of the region and are not involved in and have hardly any information about any sustainable development initiatives in Gilgit-Baltistan.

In terms of the meaning the respondents attached to and their perceptions of sustainable tourism, nine characteristics were identified by the participants. Figure 6.1 presents the themes surrounding the meaning of sustainable tourism that emerged during the interviews with stakeholders.

Figure 6.1: Themes surrounding the meaning of sustainable tourism

All participants who understood the meaning of the term considered sustainable tourism important. Respondents were of the view that sustainable tourism would bring much needed economic benefits for the community, along with environmental benefits. For instance, it was considered both important and useful in terms of enhancing environmental and cultural sensitivity, along with understanding resources vulnerability. As one participant stated:

> *Sustainability is that which can be maintained in years to come. By sustainability we mean all institutions should preserve the heritage of the area so that next generations too can benefit from it. From sustainable tourism we mean tourist spots be maintained with all facilities. If tourists find no attraction in that area then they will not come next year then such tourism isn't sustainable (LC 6).*

Some other participants further claimed that:

> *Tourism is very important as there will be an increase in people's income. People will become aware and they will be connected to the outside world (LC 2).*

> *Yes, sustainable tourism is required as CKNP communities are at the moment not well educated, are not aware of tourism and its benefits for them, and are not much involved in tourism. Lots of outsiders are established in and around the CKNP and take the benefits out of the region (NGO 1).*

> *It is critical to the future of CKNP. Excessive and exploitative use of natural resources with disregard to the fragile ecosystem of the area will have disastrous consequences on the land and the people (NGO 2).*

6.4 Barriers and opportunities

This section identifies some of the barriers and opportunities for achieving a sustainable level of tourism for CKNP. It focuses on current problems regarding communication between protected area staff and local communities that potentially

affect stakeholders' participation and inhibit development and implementation of a sustainable tourism system in CKNP. The results of the interviews and focus group discussions were merged as The results of the interviews and focus group discussions revealed five essential categories that represented the issues related to sustainable tourism in CKNP. Initially, key concepts were derived from each interview for each stakeholder group. The data thus generated was reviewed for concepts that appeared multiple times. Similar concepts were clustered and themes were assigned to each cluster. These themes were then classified and grouped under broad categories. The results are presented according to the thematic categories derived from the content analysis. The literature review helped to inform the interview and focus group questions.

According to Saunders et al. (2012), categories can either be derived in advance by consulting the literature (concept driven) or from the data collected (data driven). The categories identified were data-driven, guided by the purpose of the research. The initial labels for these categories were developed from the actual terms used by the participants. The labels with similar connotations were then integrated and assigned to each of these categories. These categories provided the researcher with a well-structured analytical framework to pursue the analysis (Saunders et al., 2012).

6.4.1 Awareness and information

Three different aspects of awareness and information emerged during the interview analysis. These were: ecological awareness among local communities about resource depletion and biodiversity conservation through tourism; information and education for tourists and tourism enterprises; and information sharing and communication between local communities, other stakeholders and protected area authorities. Details of these aspects are as below.

6.4.1.1 Ecological awareness

The opinions of respondents indicated that they appreciated the role of increasing awareness linked to increased willingness and active participation in protected area management activities. The local community members gave credit to

the NGOs for the enhancement of their awareness and perceptions about protected areas and its resources.

> *NGOs have focused on conservation – awareness activities were organized by NGOs. There is a lot of change in people's attitude towards wildlife and what is its value. People are well informed and they understand the importance of wildlife (LC 1).*

It helped in strengthening their relationship with the protected area. They showed their willingness and active participation in protected area conservation activities:

> *We have established a village conservation committee with the cooperation of WWF and IUCN. There have been a lot of changes in grazing practices after the establishment of conservation committee. The committee has agreed to put a ban on grazing for five years in one area to help it recover from previous grazing practices (LC 3).*

The remark above clearly demonstrates the interest, willingness and commitment of local communities to conserve their resources. What they require is the opportunity to get organized and engage in a collaborative process.

6.4.1.2 Information and education

Considering the great potential of tourism in CKNP, activities and facilities such as information centres, signage and educational and interpretation activities should be ideally provided by the tourism department and protected area authorities. The protected area authorities admitted that adequate information to the tourists was not being provided to avoid or reduce visitor impacts:

> *More than foreign tourists the domestic tourists are creating great problems here; they go to places that are ecologically sensitive. People go there for excursions and leave behind waste. We are facing problems relating to the absence of information centers and other facilities. There are no wildlife watch towers, there are no view points, no sign boards (PA 1).*

Moreover, the tourism department and protected area authorities have not developed any code of ethics for the tourists and tourism enterprises.

There is no written code of ethics for the tourists (TE 2).

There are hardly any information management facilities for the assistance of tourists. According to one tourist from Austria:

> *What is going on the roads, how is the weather condition, which passes are open or closed you get no information. When you go to the Park, there is lot of snow you go all the way down and that is frustrating. I have been in Lahore and asked for the Karakorum. They did not know anything about it. They did not know if Karakorum was open or closed. Lahore is a big city. Zero information in Lahore although it has a big tourist office. I think we should be better informed (TR 1).*

It was observed that knowledge of tourists about the region was generally minimal. The protected area authorities and the tourism department had not devised any information and education channels for the tourists. As one of the tourists from Austria remarked:

> *I was not informed that we need a permit to go over to the lake. You go to the lake you are sent back to Karimabad, a one hour trip from the lake to get the permit for the boat. I think we should be better informed. Such restrictions are frustrating (TR 2).*

The tourism enterprises also mentioned this unavailability of information to tourists:

> *We need to give a lot more information to the tourists. About 90% of the tourists especially domestic tourists don't know the exact locations of different lakes and tourist spots in Gilgit-Baltistan. People don't have any information at all. All the departments related to tourism have the responsibility to promote this region especially the tourism department (TE 1).*

The remark shows that there was not enough information reaching the tourists about the region and the Park. An increase in marketing of the Park could greatly benefit the Park and local communities in financial terms.

6.4.1.3 Information sharing

Furthermore, the flow of information and the culture of information sharing among the tourism enterprises, local communities and government departments were negligible. This poor information and knowledge-exchange between local communities, government and other stakeholders has reduced the level of mutual trust, communication and reciprocity that otherwise could have fostered collaboration and interaction among them. Shortage of interaction, information sharing and communication was one of the most important factors that restrained the initiation of effective participatory governance processes. As one of the NGO members said:

> *CKNP issues are known to CKNP Directorate. The activities being developed by NGOs for CKNP have very little relevance and are not aligned to these issues. If an NGO is investing in projects that have no direct link with these issues, it is the responsibility of CKNP Directorate to inform and guide the NGO to link their interventions with the issues (NGO 3).*

This study also detected that this lack of communication was a barrier to developing collaborative interaction among local communities and protected area authorities.

> *We never know what is being planned for a certain area. We are always unaware of what happens at the top and what the ground realities are. Officials always try to impose things from above. They don't understand what community wants. They should take community on board to draw out any plan (LC 6).*

Our hotels haven't been registered with tourism industry. We don't know about the procedure to get our hotels registered. I met tourism secretary to know the procedure but in vain (TE 7).

Moreover, the entire government organizational set up was shrouded in secrecy. The public departments were reluctant to disclose their financial reports.

We have system that demands us to submit our annual financial report to Auditor General and Accountant General of Pakistan and to the Planning Department; hence you don't find details of our finances in our annual Departmental Report (PA 1).

There is no information sharing mechanism within and between the government departments and the other stakeholders. There is a general environment of concealing and withholding the information and a reluctance to share information and work collectively among tourism enterprises, the tourism department and the international NGOs.

6.4.2 Knowledge and skills

Capacity for engaging in tourism development also requires knowledge and skills. The interviewees' responses show that apart from information and awareness another factor that constrained the protected area tourism system was its deficiency in entrepreneurship and managerial skills, as is evident from this remark made by a local community member:

We require climbing skills and establishing and managing accommodation facilities (LC 2).

The stakeholders identified inadequate skills and training as a major barrier in the development of tourism and the realization of tourism benefits. As one of the local community members mentioned:

Although some work is underway to promote the sale of local crafts in the Park, by government and NGOs, but I don't see community getting much

benefit out of it. We require training in craftsmanship and local food to promote local culture and tourism (LC 12).

The NGOs were of the opinion that the inadequacy of these skills was influencing the stakeholders' participation in natural resource management and tourism activities.

To participate in sustainable tourism, training of local guides, porters and cooks, in language skills, knowledge of the area, knowledge of mountaineering, wildlife, and joint marketing of tourism products of the CKNP is required (NGOs 1& 2).

It appears that the stumbling block for the local communities to enhance their livelihoods is a shortage of skills. Lack of opportunities for skills development affected the local community's capacity to participate in livelihood development activities:

We require training in marketing and hotel management and as tourist guides. Such training can help giving livelihoods to people (LC 3).

The shortage of skills was not just the issue of local communities. The protected area authorities and NGO members also raised the issue of capacity constraints among the protected area authorities:

Capacity of CKNP Directorate is an issue as they don't have the required authority, resources and opportunities to provide direction to these projects so that they can align their activities with the issues related to CKNP (NGO 3).

We don't have a research section. We always fall back upon international agencies to conduct baseline studies for us (PA 1).

6.4. 3. Benefits and incentives

It was observed during the interviews that poor economic conditions significantly influenced the participation of local communities in conservation

activities. To the local communities, hunting and tree cutting are perceived as an integral part of their livelihood as they are largely dependent on these resources. They were ready to conserve the environment if incentives were attached to it.

> *We at our end will conserve the environment to keep it attractive for tourists through tourism revenues. We have stopped hunting, we are not cutting the forest but we have a problem [in that] our survival is attached to this resource but we don't get anything by putting a ban on resource use. Show us what the benefit is for us in conserving this resource (LC 4).*

The local communities were willing to get involved in conservation activities only if they benefited from these activities

> *We do have issues with Wild Life Department. We work with them in hunting; we cooperated with them as not to cut down jungles for wood or fuel, but we don't get any direct benefits from their policies, we don't get cheap fuel even (LC 15).*

Whenever sufficient economic incentives such as the revenues from trophy hunting were shared equitably with the local community, their contribution to resource conservation increased. In certain villages the local communities appreciated the benefits from trophy hunting stemming from local conservation efforts.

> *In Hushey valley, people gave equal importance to a sheep and an ibex. But when they received Rs 35,000 for just one ibex with the initiation of trophy hunting they realized that the significance of an ibex was much more than livestock (LC 12).*

However, in other villages the local communities did not clearly recognize direct economic benefits from conservation. Local people obviously realized the spatial inconsistency in government schemes involving local communities in benefit sharing from tourism.

> *Trophy hunting has been a successful project because it accrues the benefits of conservation directly to the community. This approach has*

been introduced in District Ganchy but not in the Upper Braldu Valley which constitutes the entry point to the Park (NGO 2).

These results are consistent with other research studies where economic constraints and livelihood issues directly influenced the participation of local communities in conservation and governance activities (Brown, 2011). The participation of local communities in conservation depends on how these activities positively or negatively affect their livelihoods. Livelihood issues may jeopardize the conservation efforts of the protected area authorities because local people may continue to hunt and cut trees illegally when they have no alternate sources of income.

With all the above constraints, there was a general consensus among the participants that tourism provided a range of economic benefits to local communities. Such benefits included (i) revenue from trophy hunting fees to support conservation and social development (education, roads and public health), (ii) tourist accommodation and travelling, (iii) local job creation (porters, guides, and cooks), and (iv) donations from tourists to the NGOs. The local communities acknowledged that through international tourists' funds and interventions NGOs were established for community development projects.

Yes tourists are active here and their activism has generated resources. The mountaineer who climbed K-2 for the first time in 1954 was also an Italian. The Golden Jubilee of this climb was celebrated in 1977. After this the Italian NGO started its intervention here. It's for this reason the Italians are providing massive funding here (LC 7).

Other benefits of tourism that were mentioned included cultural exchange with tourists and exposure to the outside world. However, the scale and scope of such benefits is limited. It was observed that opportunities for revenues received directly through craft sales and village visits is limited. Consequently, opportunities for revenue to be exchanged directly between tourists and the community are limited.

If a party of tourists comes directly to the village then the income generated from their transportation and other services such as food and accommodation goes to the local communities. At the government level the

income generated from tourism goes into government funds and the community has no share in it (LC 2).

The above statement illustrates a typical perception that only minor economic benefits are received by the protected area from tourism, especially when compared to the benefits to the federal government from permits, royalties, and trekking and climbing fees. Overall, when asked to describe the benefits of tourism, the stakeholders focused almost exclusively on the economic benefits. Few individuals identified other benefits such as conservation and cultural exchange between tourists and the local community.

6.4.4 Participatory planning and management

6.4.4.1 Communication and dialogue

Most of the protected area authorities' staff made comments that regular, open dialogue existed between different stakeholder groups and that participation of local communities in protected area planning and sharing of benefits with them was imperative, as some of their comments suggest:

Yes the Park has a sustainable approach for tourism promotion and development as Directorate of CKNP is working in close collaboration with the other respective partner organizations (PA 5).

Sustainable management is only possible if we involve the communities (PA 4).

Unless we give benefits to poor communities, we don't think any sustainable tourism is possible (PA 1).

Local community members on the other hand indicated otherwise. Nearly 75% of the participants from the local community and tourism enterprises groups were of the view that communication between the protected area authorities and these groups was either non-existent or limited at best.

The support and cooperation (influence) of the tourism department and government is little (LC 1).

The government departments concerned with tourism have no links with the local communities. They do not involve and consult local communities and profits from tourism go to the departments. This link with the communities should be established (LC 2).

We have heard a lot about CKNP directorate but it has not approached us as yet. CKNP has not involved us in any meetings. We only have links with WWF (LC 3).

They often reported that decisions were made without giving them the opportunity to provide input.

The tourism department constructed a road in a fragile wildlife sanctuary to provide access to the tourists. With this construction of the road deforestation has increased in the sanctuary. They did not involve us in the decision-making. We were neither consulted nor taken into confidence while taking this decision (LC 1).

Most of the stakeholders were of the view that the protected area authorities need to ensure that local communities are involved in effective dialogue and decision-making through partnerships, as without such an effort, consequences like illegal resource extraction and hunting may persist.

The communities should be involved in the development of regulations for CKNP and in the demarcation of its boundary line. At least 80% of the involvement should be of the local community. If the government wants to do it alone it will not be accepted. If the community is not involved there will be great problems (LC 5).

6.4.4.2 Coordination, cooperation and commitment

Koutra and Edwards (2012, p. 2) define social capital as "the element that keeps together the inherent networks found in institutions, along with the trusts and norms that encourage cooperation and coordination between individuals and assist collective action for reciprocal benefit". The interview results show that the

contribution of protected area authorities and international NGOs in encouraging and facilitating coordination, cooperation and reciprocity among the stakeholder groups to enhance social capital was very modest. It appeared as if the NGOs working for CKNP are reluctant to coordinate. As one of the NGO members remarked:

> *Unfortunately, all the projects working in Gilgit-Baltistan have negligible integration and understanding between them. Rather there is more competition among them than understanding. There are no synergies and the environment of acceptance has not taken root as yet among these NGOs. Each NGO wants to promote its work. At present the system is somewhat disintegrated. CKNP responsibility is divided up among numerous departments. Different departments and NGOs are working independently within CKNP to manage its different resources and services without any coordinated system (NGO 3).*

A similar concern was raised by a protected area authority official:

> *There is lack of coordination among Directorate of CKNP, Tourism Department Gilgit-Baltistan and Ministry of Tourism Islamabad and the organizations working for the promotion of tourism in CKNP area (PA 5).*

The remarks of the respondents indicated that this reluctance to coordinate is linked to the culture of protected area authorities who appear to recoil from taking responsibility for developing a collaborative management system as it would entail transparency and accountability.

> *The protected area authorities know that once they approve the plan they will be committed to own the process of participatory management as outlined in the plan. With this ownership all the NGOs will be bound to work according to the plan. The problem is that each NGO has its own philosophy and each government department has its own agenda (NGO 3).*

The following remarks made by an NGO member reflect the level of interest and responsibility the protected area authorities are willing to take to coordinate collaborative park management:

> *The administrative machinery refuses to provide systemic support in the absence of a park management plan. It is hoped that once the park management plan is ready, it will become easier for partners to work together (NGO 2).*

As reflected in the document analysis, it seems the NGOs do not engage in a formalized participatory planning process with other stakeholder groups, especially local communities, to delegate powers and to develop a well-coordinated integrated strategic plan with well-defined objectives and indicators.

> *The Italian NGO EVK2CNR is playing the lead role in the Social Economic and Environmental Development Project. The program is in its third year but no clear picture has emerged so far about the scope and objectives of the project. The attempt to institutionalize a collaborative management structure for CKNP exists on paper but translating it into reality will require a different approach and a more concerted effort (NGO 2).*

This low interest and commitment to promoting tourism in Gilgit-Baltistan is captured well by the following remarks:

> *The tourism department was established in Gilgit-Baltistan in 2001 but it is still not a regular department. It is working as a project. You can imagine then how much Gilgit-Baltistan administration is interested or commitment to improve tourism in Gilgit-Baltistan (NGO 3).*

Another issue captured in the document analysis about the negative role of the government in tourism promotion also became visible during the interviews. It is captured well by this remark:

> *I met a foreign tourist couple at Boret Lake, Hunza. They said your embassy told us not to visit Pakistan. We have come here on the*

recommendations of our friends who visited Gilgit-Baltistan last year (LC 19).

The tourism department was not only cognizant of its role as a key player and partner in CKNP tourism planning and promotion, but also affirmed its commitment to integrate CKNP in its tourism development agenda. As one tourism department member remarked:

At present 70% of expedition parties go to CKNP. Last year out of 134 parties 125 went to CKNP. We are taking care of tourism component of the CKNP tourism plan. We are trying for integration (Tourism department-code has been omitted for anonymity).

A conflict of opinion was observed between the remarks of the tourism department representative and other stakeholder groups:

There is no formal linkage between the CKNP and tourism department with the view to develop a sustainable tourism policy (NGO 2).

This remark substantiated the findings of the document analysis where the non-appearance of CKNP on the Tourism Department Gilgit-Baltistan website speaks volumes about its level of interest in and commitment to promoting CKNP as a niche destination.

6.4.4.3 Linkages between stakeholder groups

As noted in the previous section, it seems the protected area authorities at the study site have not applied a holistic approach to linking conservation efforts of local communities with economic benefits. In the case of trophy hunting, a piecemeal effort to involve the communities was apparent. Only a few villages are the recipients of development support. Tourism benefited the privileged few, while the others were deprived of any part in the activity. Although local communities did receive the benefits which originated from their conservation efforts, to ensure their continuing commitment to conservation would require their active participation and partnership in long-term governance of the protected area. As one of the NGO members remarked:

Tourism can help in the improvement of social and economic indicators. The best way forward is through a process of inclusion and sharing which links economy with ecology. This approach will require a long process of social mobilization and sustained dialogue and interaction with the community but in the end will give results that are sustainable and in the best interest of the community and the environment (NGO 2).

The local communities indicated that they were hardly involved in protected area decision-making and management.

We never know what is being planned for a certain area. We are always unaware of what happens at the top and what the ground realities are. Officials always try to impose things from above. They don't understand what community wants. They should take community on board to draw out any plan (LC 6).

There were no governance mechanisms in place for interaction and networking among stakeholders groups.

CKNP should visit and organize meetings with us so that we can resolve our resource use issues and promote tourism (LC 3).

The inability of CKNP Directorate to network with local communities to reach consensus to streamline systems will also be a major impediment to the sustainability of the Park (NGO 2).

6.4.4.4 Involvement and inclusion

The stakeholder groups demanded increased community involvement, improved communication with government authorities, and increased stakeholder inputs. As one of the members stated:

The communities should be involved in the development of regulations for CKNP and in the demarcation of its boundary line. At least 80% of the involvement should be of the local community. If the government wants to

do it alone it will not be accepted. If community is not involved there will be great problems (LC 3).

The analysis showed that the initiatives by the park authorities' to involve local communities in tourism to promote their livelihoods and conservation are restricted to only one activity and a few valleys surrounding CKNP. The planning for these initiatives is not holistic and integrated as it does not include a trophy hunting plan for all the valleys where trophy hunting is possible. Rather, valleys seem to have been chosen sporadically on selective preferences.

Although most of CKNP is spread out in this area, our community isn't getting much benefit of hunting. Government isn't that active in the area. We do conservation at our own; we don't get much support from the government (LC 11).

However, wherever community-controlled hunting areas were established it brought a change in the attitudes of the local community as it increased their level of support for conservation of wildlife. As some of the NGO and community members remarked:

In the case of Hushey valley, trophy hunting has affected the level of community support for conservation of the Park. The Hushey community – at least to some extent – takes care of their environment and has stopped hunting. Other communities still hunt extensively especially ibex, but they have often been neglected and don't benefit much through tourism or development activities (NGO 1).

These remarks are consistent with the quantitative results in Chapter 5 that indicate that benefits from tourism influence the commitment for environmental protection.

6.4.5 Governance issues

A number of governance issues were identified during the analysis of the interviews. These were as follows.

6.4.5.1 Top down governance

One issue identified by the respondents was the top-to-bottom administrative system in Pakistan. As one of the protected area authorities' staff remarked:

> *We should manage tourism from Gilgit-Baltistan and not from Islamabad. Islamabad seems centralizing everything. Tourism is a vast industry, tourists come here, money stays in Islamabad… in a situation like this how can tourism be managed (PA 4).*

The Federal Government is responsible for the preparation and implementation of national policies and there is no mechanism for developing provincial level policies as one of the staff members from the protected area authority groups stated:

> *Local level policies are required. For instance, the issuance of trekking permits for tourism should be at local level and not at federal level (PA 3).*

The top down and complicated management system was, therefore, a key contributing factor in CKNP where, at different organizational levels, the decision-making authority was not clearly defined and delegated at the lower levels of government hierarchy.

> *There is an issue of autonomy; we cannot work on our own. According to the development manual/laws, Pakistan Public Works Department [PWD] is responsible for all renovation/conservation. There is a need to revise laws in this regard. It is a provincial matter. Laws must change (PA 1).*

For example, the CKNP Directorate, which comes under the Forest and Wildlife Department, feels powerless as it lacks authoritative control and does not have the power to implement its decisions due to the hierarchical governance structure. When asked what factors could increase CKNP Directorate's participation in tourism management in the Park, one of the protected area members replied:

> *What is required is empowerment and sharing of administrative powers and strong coordination and linkages with the tourism department (PA 5).*

6.4.5.2 Policy and legislation

The protected area authorities were of the view that tourism development was inhibited due to the centralization of policy decision-making.

> *When policy is made at federal level it misses a lot of things on the ground. Our area is fragile and sensitive and we want to have regulations that address actual issues (PA 3).*

The NGOs and protected area authorities felt that protected area tourism as a system was confronted with challenges related to either absence of policy or gaps in legislation. As some of them remarked:

> *Private investors don't invest here, because there is no investment policy. Currently we don't have any destination management policy; we don't have any tourism policy for Gilgit-Baltistan (PA 1).*

Similar concerns mentioned in the document analysis were echoed in the remarks below.

> *The only legislation is the Wildlife Act 1975 that does not cater to the requirements of the people living around the Park (NGO 3).*

> *There is a National Tourism Policy that is under consideration for approval but no specific tourism policy for national parks in Pakistan or for Gilgit-Baltistan exists (PA 5).*

6.4.5.3 Land use rights

The creation of CKNP has left the impression on local communities of restricted access and use through legislation, enforcement and marginalization of indigenous people because of their land-use practices.

> *We are ready to manage the pastures to conserve them but we wouldn't like the government to tell us that we have no use rights in the Park (LC 4).*

The local community feared that protected area authorities would change the present status of land-use rights and they would lose their rights for subsistence practices.

> *The local community fears that once the national park is operational the government will take possession of all land and exclude communities from any benefits. The community should be given their land rights (LC 5).*

As noted in other research studies on protected areas (West et al., 2006), it seems sustainable tourism has caused tension, conflict and changes in resource use rights as the government has failed to deliver the community-level benefits from tourism.

> *There are serious land issues and property rights between the communities and the park authorities. These pertain to grazing areas inside the Park on which the local communities depend for fodder and firewood. Restriction on its use by the Park Authority received stiff resistance from the communities (NGO 2).*

The protected area authorities acknowledged this tenacious issue of land rights. As one of the protected area staff members said:

> *There are lots of issues among communities regarding the use rights and most of the local communities think that they are owners of the land but according to government all the barren land and natural resources are government property. Therefore it creates problems for the park authorities, which need to be resolved (PA 5).*

> *Another issue is the jurisdiction of the community on the land. The community claims the land as their ownership. The government law says something else (NGO 3).*

To make sustainable tourism practices ecologically and socially beneficial, the protected area authorities would need to evolve a governance structure that is inclusive and transparent.

6.4.6 Economic issues

The stakeholders were of the view that while CKNP as a tourist destination brings significant revenues, only a fraction of these revenues actually reach the local communities and the protected area authorities. Most of the stakeholder groups showed their dissatisfaction with the total share reaching the region. They pointed to the limited revenues allocated to them in comparison to what went into federal government treasury.

> *I think most of the revenue goes only to the government of Pakistan. Only a portion of it goes to hotels and local traders, and communities get just a small portion of it (LC 11).*

> *Only small part of revenue generated out of tourism is used for the betterment of local communities, the lion share of this revenue goes to the government of Pakistan (LC 15).*

As observed in the document analysis, the participants were skeptical about the local economic impact and viability of tourism in CKNP as there was widespread agreement among all the stakeholders that very little of tourism revenue generated in Gilgit-Baltistan actually remained in the local economy because of "leakages". As one of the protected area authority members said:

> *We aren't generating revenue; here government should act as a catalyst. The current revenues being generated are through trekking – US$ 2000 for K-2. These go to the central government (PA 1).*

The respondents were of the view that these leakages, also mentioned in the section on document analysis, were due to factors such as control and diversion of most of the revenue to the federal government.

> *The government takes the royalty from these mountains (the climber pays PK Rs 12000/- to the government as royalty to climb K2) but does not respect these mountains. It does not pay any attention to the conservation of the area (LC 5).*

Most of the revenue from Gilgit-Baltistan was remitted directly to the federal government treasury. These results are consistent with other research studies in tourism for many protected areas, with a central authority collecting the revenues and then budgeting for the national protected areas from a central pool (Tumusiime & Vedeld, 2012; Vedeld et al., 2012). There were few avenues for CKNP to generate revenues.

> *Trekking and mountaineering are the major products of tourism that generate revenue because expedition parties pay the royalty in dollars; trekking parties too pay fee in dollars. The revenue goes to the central treasury in federal government. We meet our requirement through annual development programs (PA 1).*

The government-run tourism enterprises had a central command system as these came under the Ministry of Tourism at the federal government level. When asked where tourism revenues generated from Gilgit-Baltistan were used, two of the members interviewed said:

> *All the revenues generated from the enterprise are transferred to the head office in Islamabad (TE 1 & TE 2).*

This trend coincides with empirical studies in developing countries that suggest that only "between a fifth and one-third of the total tourist turnover in a destination is captured by the 'poor' from direct earnings and supply chain" (Mitchell & Ashley, 2007, p. 2). Similarly, Pluss and Backes (2002) report that averages of 40% to 50% of the economic benefits of tourism result in leakages. In other words, it has been acknowledged that tourism has not been able to enhance local livelihoods substantially (Pluss & Backes, 2002; Scheyvens, 2007; Sharpley, 2009; Zapata et al., 2011). In CKNP, this drain on the economy can be attributed to the top-down policy structure, lack of connections among different stakeholders groups and lack of business and tourism skills.

6.4.7 Political issues

A major barrier frequently mentioned by all the stakeholder groups was that in Gilgit-Baltistan tourism is controlled and influenced by politically instigated

policy issues at the federal level that placed local entrepreneurs and tourists at a disadvantage. Even the local government departments were sceptical of the federal government's inhibiting and restrictive policies for tourism promotion in Gilgit–Baltistan.

> *Tourists don't get visas because our visa councilors say Pakistan has security problems so don't go there. We just lost a six million business opportunity because of visa issues. A group was heading to us but couldn't come here because they weren't granted visas (PA 1).*

The picture portrayed by the federal government was contradictory to the local communities' perceptions about Gilgit-Baltistan, which is evident from this remark:

> *Actually, tourists are always safe here in Hunza and Gilgit, but Islamabad paints a different picture of this area that no tourist is safe in Northern Areas. This is one of the greatest issues, because there isn't any threat to any tourists here (LC 6).*

> *The history of Gilgit-Baltistan indicates zero crime rates. You will never find any place in Pakistan with zero crime rates. We never have had any suicide bomber in the history of Gilgit-Baltistan (PA 1, LC 5).*

Another issue impacting tourism is the political instability and the disconcerting image of Pakistan after the 9/11 incident. The exact data of tourist arrivals in CKNP was not available, but most of the respondents mentioned that there had been a remarkable decrease in international tourist arrivals since the 9/11 event and subsequent acts of terrorism in Pakistan.

> *As direct impact of 9/11, we have seen closing of businesses, hotels and tourist operators (PA 1).*

The decrease is attributed to events such as the uncertainties from terrorist activities, the poor image of Pakistan as an insecure country, and the government policy of discouraging the entry of foreigners into Gilgit-Baltistan proclaiming it as a

restricted area and therefore there are cumbersome processes of police checks to obtain a permit to travel to Gilgit-Baltistan.

> *Because of negative travel advisory and media, people are afraid to come here. The number of trekking parties after 9/11 has come down to 110 from 300. Expedition licences too came down from 70 to 60 and right now 40. Because of security threats in Pakistan, our image is tarnished abroad (PA 1).*

The participants were concerned that the government of Pakistan was portraying the image of Gilgit-Baltistan as a potentially unsafe place.

> *Government officials discourage the flow of international tourism; they simply advise the intended tourists, 'don't come here, we have issues of law and order.' I fail to understand what our government digs out from poor tourists who come here with revenue (TE 7).*

The deployment of a large chunk of armed forces even within the Park, and strict security checks and agency personnel monitoring the movements of foreign tourists has inhibited the development of a strong and healthy tourism market. A tourist from the USA remarked:

> *While travelling from one village to another the police followed us. It was very uncomfortable. The police said it was for our security from terrorist attacks. We would rather travel without security as we felt more secure without the police following us as we had heard that the target of the terror groups was the police itself (TR 4).*

The interviews with tourists revealed that the on-ground security situation was very different than what the government was portraying. These security issues were not real. Rather, the responses of the international tourists who visited the area dispelled the negative image portrayed by the media and the government regarding Gilgit-Baltistan as an insecure tourism destination. As some of the international tourists remarked:

We were apprehensive coming to Pakistan because of the volatile political situation. Our friends and relatives tried to dissuade us from travelling to Pakistan. Now that we are in Gilgit-Baltistan we feel no threat at all. The place is as safe or as dangerous as any other European country. I think the image portrayed by media and the security concerns of the government of Pakistan are exaggerated. Gilgit-Baltistan is safe and people are friendly (TR 3).

There are no security concerns personally. I am very happy to be here. It is very safe (TR 2).

Every day I get emails from my government saying, "do not travel in Pakistan. Reconsider". I am thinking it's the most beautiful part of Pakistan. What's the problem? I feel quite safe travelling on road. In Gilgit-Baltistan I felt completely safe. There are no risks involved in this area. The police check is a scare tactic. It is there to make you worried rather than out of concern for your safety (TR 4).

The above remarks show how government policies and lack of common vision and coordination among the state and provincial governments have significantly impacted upon the development of tourism as the key economic sector for Gilgit-Baltistan.

6.5 Summary of qualitative results

The chapter examined research question four that focused on the barriers and opportunities for sustainable tourism in CKNP. The seven main categories of issues were identified through theoretical coding. These issues were: Awareness and information; knowledge and skills; benefits and incentives, participatory planning and management; governance issues; economic issues; and political issues. These issues coincided well with the factors that were drawn from the exploratory factor analysis of SUS-TAS, and the two capacity scales, namely, CC-ST and PAC-ST scales discussed in Chapter 5.

The findings of the qualitative analysis show that currently tourism in CKNP is socially, economically and environmentally unsustainable because of its relative instability. This instability can be attributed to a number of reasons:

1) Tourism demand has generally been susceptible to shocks and unpredictable events such as natural disasters, regional conflicts and political instability.

2) The livelihood and conservation opportunities that tourism could have created for the local communities and the protected area have not been realized in CKNP.

3) The level of trust and conviction within the local communities for the government and its policy performance is low. The inability of protected area authorities' to consult, engage, communicate and respond to and meet the requirements of the stakeholders has contributed to these negative feelings and perceptions.

4) The CKNP has managed to create some tourist activity that generates funds for conservation and livelihood development for the buffer zone communities with the support of NGOs. However, a participatory integrated sustainable tourism system is barely in place because unsubstantiated policy and planning initiatives have fall short in integrating social, economic and environmental issues and empowering the local stakeholder groups through capacity building for cooperation, collaboration and participatory management.

5) The prevailing governance system has failed to understand and acknowledge the protected area tourism system as a complex social-ecological system and to address the equally complex interrelationships between the actors and the system. These issues have serious policy and management implications for the development of a sustainable tourism system that promotes economic stability of local communities and sound practices for the conservation of the Park.

To sum up, the top-down centralized governance system where policies are made without strategic planning and consultative process and where opportunities for power sharing are few and far between has been a major stumbling block in the development of an integrated and collaborative protected area tourism system in CKNP, based on a participatory governance structure.

CHAPTER 7

Discussion, Conclusion and Recommendations

7.1 Introduction

This chapter begins by returning to the research objectives developed to investigate the research issue as these shaped the nature and the scope of the study. Section 7.2 discusses each of the four research questions in light of the findings obtained from the analysis. This section provides a summary of the findings for each research question followed by the triangulation of quantitative results with the qualitative finding. Implications for policy and practice are given for each research question. The framework for an integrated systems approach to tourism management is addressed in Section 7.3. The framework emphasizes the incorporation of strategic planning and stakeholders' capacity building as the key elements of participatory governance for protected area tourism. Contribution of the research to theory and practice is given in Section 7.4. Keeping in mind the limitations of the current study, recommendations for further research are made in Section 7.5. Finally, the conclusion is presented in Section 7.6.

7.2 Summary of findings

This section addresses the four research questions of the study on the basis of the results of the data collection and analysis previously outlined in Chapters 4, 5 and 6. The first three questions were analysed using a quantitative technique, that is, a survey instrument. The fourth question was analysed by applying qualitative methods of content and document analysis. Finally, as stated in Chapter 4, a comparison of the results of quantitative and qualitative data was carried out for triangulation purposes.

7.2.1 Research question one

What is the level of interest of the key stakeholders in the environment? Is the level of interest among different stakeholders significantly different?

The first research objective explored the level of interest in the environment among protected area authorities, local communities, tourists and tourism enterprises. The findings of the New Environmental Paradigm Scale (NEP) showed the tendency among all the stakeholder groups to endorse pro-ecological values, which was similar to the results from previous studies on environmental attitudes (Byrd et al., 2009; Dunlap et al., 2000; Kim et al., 2006; Verdugo & Armendariz, 2000). All the stakeholder groups agreed that humans are subject to the laws of nature, that humans are severely abusing the environment and that the balance of nature is easily upset.

The four stakeholder groups, though, did not hold a distinct egoistic or eco-centric position; rather, they held both positions giving relatively more importance to the pro-ecological viewpoint. The stakeholders did not see a major conflict between the two opposing views depicted in the new environmental paradigm (NEP) and human exemptionalism paradigm (HEP) dimensions of the scale. Consistent with previous research, there was no disagreement in holding both beliefs, confirming the similarity in environmental attitudes across the developing world (Bechtel et al., 1999; Liu et al., 2010; Verdugo & Armendariz, 2000). The stakeholders were concerned with the negative human impact on the environment, but at the same time were interested in benefiting from the profits they could gain from the protected area resources. In addition to an intrinsic interest in the natural environment, a moderate level of use interest in the environment was also evident.

This view is opposed to the results of NEP research in Western countries where the respondents' perceptions of the environment are distinctively pro-NEP (Dunlap et al., 2000, Dunlap et al., 1993; Seguin et al., 1998). Although the respondents had environmental concerns, it was not their top priority. Such dualistic environmental values suggest that the paradox here is one of "self" (one's entitlements and rights) versus "the environment" (Mair, 2011). This difference in the NEP results between the developing and developed world could also be attributed to social and economic disparities. There is a possibility that low income levels, inadequate social facilities and concern for survival on a day-to-day basis may dilute the motivation to protect the environment in developing countries.

In the results that showed differences in the level of interest among the four stakeholder groups, it was observed that local communities and protected area authorities, who had a close relationship with the protected area, had a higher level of

eco-centric interest. These results support prior findings that show similar results where higher levels of place identity amongst residents were associated with higher levels of pro-environmental attitudes (Carrus et al., 2005; Dolnicar, 2010; Gosling & Williams, 2010; Liu et al., 2010). By contrast, the tourists and tourism operators, who had only a business and recreation association with CKNP, tended to have a higher level of inclination towards an egoistic interest in the environment. As other studies suggest (Dolnicar, 2010; Dolnicar & Leisch, 2008; Khan, 2003; Mobley et al., 2010; Weaver & Lawton, 2002), a more pro-environmental attitude among the protected area authorities in CKNP could be associated with their higher level of education, formative environmental education knowledge, and a high level of moral obligation to behave in an environmentally friendly manner

These results also suggest that local communities' closer experience with the protected area environment and dependence on it for survival caused them to support the NEP more than stakeholders who just visited the protected area. Similar results were found in a protected area study in China, where local farmers' pro-ecological attitude towards the environment was linked to the strong connection between their livelihood and the park (Liu et al., 2010).

7.2.1.1 Comparative analysis

The results of the NEP were compared with the qualitative and document analyses given in Chapter 6 to examine the relationship of environmental interest in the NEP with actual behaviour towards the environment. Previous research shows that the link between environmental attitudes and behaviours is debatable. Individuals who endorse the NEP may not necessarily engage in pro-environmental behaviour as environmental attitudes alone are not sufficient to explain people's relationships with nature and the motivation behind environmental behaviours (Dunlap et al., 2000; Dunlap & Van Liere, 2008; Kaplan, 2002; Nisbat, 2008; Pooley & O'Connor, 2000). Pro-environmental behaviour is defined as, 'intentionally reducing the negative impact that an action can have on the environment' (Dono et al., 2010 p. 178). The results of the qualitative analysis substantiated this inference. Despite a pro-ecological interest, the qualitative analysis indicated lack of behavioural commitment on the part of the protected area authorities to implement effective management strategies for sustainable tourism and environmental

protection (Nawaz et al., 2009). Similarly, tourists, tourism enterprises and local communities were seldom engaging in pro-environmental behaviour.

Empirical studies regarding the determinants of environmental behaviour suggest that education, knowledge, skills and opportunities for environmental activism through affiliations with environmental groups predict pro-environmental behaviour as these can transform concern for the environment into environmentally responsible behaviour (Fielding et al., 2008; Lee, 2008; Nisbet, 2008). The qualitative analysis helped in determining the deficit of similar factors that hindered in translating the pro-NEP stance of the stakeholders to behavioural changes compatible with it. The results of the content analysis revealed that the level of interest in the NEP alone could not generate sufficient political and social motivation among the stakeholder groups to engage in a collaborative effort that would promote environmental conservation through sustainable tourism in the Park. There was a complexity of issues that weakened the stakeholders' resolve to translate their eco-centric interest into behavioural intent for the Park's protection. These included inadequate skills and resources to commit to conservation, weak networking, and inadequate knowledge and information about the social, economic and environmental status of the stakeholder groups and the protected area. These findings concur with previous studies where similar problems have been associated with protected areas in the developing world (Kaltenborn et al., 2011). The qualitative analysis showed that shortage of interaction and information sharing and a communication gap were the most important factors that influenced stakeholders' participation in natural resource management and sustainable tourism activities.

The comparative analysis also revealed that interest in conservation and the environment was linked to stakeholders' incentives. For instance, the local communities associated their interest in conservation with what they would be achieving by conserving the wildlife species. They were committed to conserve the ungulate species and increase their numbers so that they could generate economic and social benefits through trophy hunting of extra heads. In other words, incentive was a motivational factor for them to be committed to their natural environment. The results were similar to studies on sustainable farm productions that assert a stable farm income (incentive) is a precondition to improving sustainable production (CREM, 2000; Triana, 2003).

In spite of their interest in the environment the local communities attached very strong use values to their resources. Previous research also shows that although the stakeholders would support the protection of the natural resources their support would be lukewarm if there was an obvious economic cost (Byrd et al., 2009). The local communities residing in the buffer zone of the park admitted that irrespective of their interest in the environment they were capable of resource exploitation and poor decision-making to meet their economic needs. These results of the qualitative analysis substantiated the quantitative analysis wherein the respondents' willingness to conserve the natural resources was dependent on the social and economic benefits associated with them. People who benefited from trophy hunting showed a positive attitude towards conserving the environment. The protected area managers need to view this interest of the local communities in conservation as an opportunity to facilitate their participation in sustainable resource management and tourism initiatives. Previous research also emphasises the importance of following two principles for a more ethical approach when managing stakeholders. These include considering the interest of and benefit to all stakeholders and being sensitive and responsive to stakeholder expectations (Newcombe, 2003).

Another factor for insufficient commitment of the stakeholders to the protected area environment could be related to the top-down governance structure and exclusion from the planning process that has hindered nature conservation and sustainable tourism development. For instance, the inability of the protected area authorities to develop a participatory rangeland management plan with the local communities has caused the local communities to become involved in grazing practices that might be ecologically unsound. Such an attitude is quite understandable, particularly in the context of the CKNP resource-dependent local communities. There is evidently a compelling link between their livelihoods and the natural resource base which they exploit for their survival. However, during the interview discussions with them, one element that came out very clearly was their realization that their survival is dependent on the survival of the resource base, but they required the capacity, support and a say in decision-making to conserve the resources through sustainable practices.

The tourists and tourism enterprises were more inclined towards an egoistic stance towards the environment. This low interest in the environment could be

attributed to inadequate exposure to knowledge and understanding about sustainable tourism principles and practices which were brought out in the qualitative analysis as one of the barriers to sustainable tourism development in CKNP. In particular, domestic tourists and tour operators visiting CKNP were mostly individuals who were not exposed to a tourism experience that engaged them in environmentally responsible behaviour through education, interpretation and a code of ethics. There were no visitor management facilities in CKNP. Similar findings were observed in other research studies where specific knowledge on principles and practices of sustainable management is linked to attitudes (Freeman et al., 2012; McFarlane & Boxall, 2000). For instance, research has shown that individuals with higher knowledge levels have more positive attitudes than those with low levels of knowledge (Bright & Manfredo, 1997; Young, 1980). Measures such as environmental education and awareness building among tourists and tourism enterprises which can be implemented at destination level have been largely ignored.

The underlying idea of using tourism as a tool for conservation and environmental protection could encourage tourists and tourism businesses to develop an interest in ecotourism, to enjoy and care about nature and, as a consequence, act in an environmentally friendly manner. To achieve the "self transformation" of tourists and tourism enterprises towards sustainable tourism, the CKNP directorate will have to play a lead role in collaboration with other key partners in providing avenues for nature-based environmental learning, education, and experience so that "a general tourist [or tourism operator]...may end up being a responsible tourist [or tourism operator]...who cares about and acts for the environment, the community, and the society" (Luo & Deng, 2008, p. 364). Tourists and tourism enterprises with environmentally sound behaviours are especially important for protected areas with fragile environments that need the income these stakeholders bring to support conservation measures and local communities (Dolnicar, 2010).

The above discussion provided an overview of the differences between stakeholder groups in their environmental orientations and in the value they assign to the environment. The study further explored the determinants of the differences in the level of interest among stakeholder groups. It was discovered that the differences in the level of interest in the environment were related to the meaning the stakeholder groups attached to the relationship between humans and the environment. These

findings were further supported by the qualitative analysis. It was observed that factors such as exposure to knowledge and information (formative experiences), governance structure, and opportunities to engage in pro-environmental behaviour influenced the environmental orientations of the stakeholder groups.

7.2.1.2 Implications for policy and practice

Tourism research is increasingly recognizing the significance of understanding the attitudes of stakeholders towards the natural environment and its relationship to tourism development (Byrd et al., 2009; Farsari et al., 2007). It is also considered important that each stakeholder group understand the importance of incorporating the interests of the natural environment in the tourism decision-making process (Byrd et al., 2009). According to Bartos and Cihar (2011), conflicts and problems often surface from a lack of knowledge. Therefore, stakeholders need to be informed and educated for a more eco-centric interest in the environment and encouraged to participate in the management and development of tourism as a tool for conservation and livelihood development. The findings of research question one have implications for policy and practice as they draw attention to the value of knowledge generation, information sharing and environmental education through participatory governance that can help develop a sense of ownership and, as Dolnicar (2010, p. 717) states, an "intrinsic inclination" among the stakeholders to protect the environment through sustainable tourism.

The paradoxical orientation of the stakeholders towards the environment in the present study implies that relying on stakeholders to self-regulate, or reduce their ecological footprint voluntarily is implausible. To achieve the goal of sustainability it is, therefore, suggested that the protected area authorities, in collaboration with the other stakeholder groups, develop CKNP as a niche tourism destination and create opportunities for local communities, tourists and tourism enterprises to learn about the ecological significance of protected areas and sustainable tourism principles that have been said to potentially heighten awareness and commitment to environmental protection (Krider et al., 2010). Profiling the interest of the stakeholders with regard to the environment and identifying the factors that determine their engagement in pro-environmental behaviour may be helpful in identifying policies that assist in changing their environmental perceptions and behaviour in the future.

Research shows that if people understand their connection to nature they might behave in ways that respect and protect it (Nisbet et al., 2011; Nisbet et al., 2009). The sharing of information among different stakeholder groups and environmental education or experiences in nature over an extended period can lead to a deeper understanding of the issues and may result in stakeholders' increased relationship with nature and motivation behind environmental behaviours. In view of the results it is inferred that continuous education, training and knowledge generation among stakeholder groups about nature, and its significance in remote alpine destinations such as CKNP where there are presently very few opportunities for learning, information sharing, and engaging in environmentally responsible behaviour, could facilitate transformation of the stakeholders from egoists to socio-altruists. Luo and Deng (2008) view this transformation as the ultimate goal of ecotourism. These socio-altruistic values underpin the ethos of sustainable development that seeks a balance between environmental protection and satisfying human needs (Meadows et al., 1992 in Verdugo & Armendariz, 2000).

From the above findings it can be concluded that for protected area tourism to be environmentally sustainable, a dedicated interest in the natural environment and a strong willingness and commitment to promote responsible tourism practices among all the stakeholder groups must be in place. These findings are of direct practical benefit to protected area planners and policy makers who need to take the lead in guiding their partners towards environmentally sensitive sustainable tourism strategies for the protected area. Finally, an effective pro-environmental tourism policy that creates prospects for learning and engagement in pro-environmental behaviour would be required for transformation of tourism as a tool for conservation and livelihood development in the alpine protected areas where access to these opportunities is low.

7.2.2 Research question two

> *What is the level of understanding of the stakeholders about sustainable tourism? Is the level of understanding among different stakeholders significantly different?*

The second research question assessed the level of understanding of multiple stakeholders about sustainable tourism and its implications for the motivation of

stakeholders to become involved in an integrated and collaborative approach to sustainable tourism management in protected areas. The findings indicated that the stakeholders exhibited a moderately high level of understanding of sustainable tourism.

The results of the analysis illustrated that, despite the different nature of the stakeholder groups involved, there was a large consensus for sustainable tourism. The results showed that the respondents highly valued the environmental dimension of sustainable tourism and exhibited a strong level of understanding of the importance of coordinated planning to reach sustainable tourism goals.

The stakeholders did not attach any social costs to tourism. This generally low understanding of the role and influence of tourism on their quality of life was because the stakeholders had not experienced any negative social consequences due to low key tourism. The findings coincide with the concept of the tourism life-cycle (Butler, 1980) where in the early stages of tourism development the residents' quality of life is enhanced through tourism and their reaction to tourism development and tourists tend to be receptive and friendly (Yu et al., 2011).

There was a strong agreement among the stakeholder groups that tourism should contribute to the local economy. Such a stance indicates that stakeholders viewed tourism as a tool for social and economic wellbeing. For this reason they did not perceive any social costs attached to tourism development.

There were significant differences between stakeholder groups towards the understanding of economic benefits. This could be explained by the importance each stakeholder group assigned to how tourism could positively affect the local community and also the relevance of these economic benefits for each stakeholder group. Since tourists were the outsiders and did not belong to that area, they had little association with the economic benefits that local communities could gain from tourism. However, they estimated that the economic benefits generated from tourism for CKNP could contribute to the social development of the community. Similarly, the tourism enterprises had a comparatively lower understanding of economic benefits as compared to the protected area authorities and the local communities. It seems their understanding about local community issues could be narrow as they did not affiliate themselves with the local community. However, they were aware of the economic benefits sustainable tourism could bring to the local communities.

7.2.2.1 Comparative analysis

When quantitative results were triangulated with the qualitative analysis it was observed that high understanding of sustainable tourism among the protected area authorities and the local communities was associated with their interest in developing a sustainable tourism management system that would improve their quality of life and the quality of the protected area environment. However, it was observed that the absence of tourism planning, development and policy formulation and a complex hierarchical governance structure with poorly defined roles were the top challenges facing management initiatives in CKNP. Moreover, lack of coordination, knowledge, capacity and skills among the stakeholder groups and an inequitable power structure among stakeholders were other barriers in the process of implementing sustainable tourism.

In addition to the above challenges, the stakeholders observed during the interviews that the region was constrained by terrorism, inadequate infrastructure, a decreasing number of international and domestic tourists due to government policies discouraging tourism, and poor marketing. They felt that the number of tourists visiting Gilgit-Baltistan was too low and tourist numbers had declined over the years following the 9/11 incident. An increased number of tourists, in their perceptions, would not only bring economic advantages but would enhance the awareness of and revitalize Gilgit-Baltistan culture. They noted that attracting international tourists would require a secure image and a well-designed road and air infrastructure.

The dissatisfaction of the tourism enterprises and the local communities with the current governance and management system indicated a general lack of communication and formal interaction at organizational levels among the stakeholder groups. The stakeholders, including the protected area authorities' representatives, showed concern over bureaucratic governance and the length of time taken to make decisions. For instance, the three CKNP protected area management plans which were developed were still paper plans as none was yet approved.

There was a general consensus that the protected area authorities had learnt lessons from their experience in the top down and exclusionist approach to management and governance in Khunjerab National Park (KNP), which is adjacent

to CKNP, and therefore were planning more inclusive management strategies with support from the international and local NGOs for a participatory management model. However, the lack of strong leadership, multiple layers of top down governance, lack of vision, and insufficient capacity and data to evolve an integrated tourism policy and management structure was impeding the process of sustainable tourism development for the park.

The results of the comparative analysis of research question two indicate that stakeholders' understanding and support for sustainable tourism is simply not enough to start the process of sustainable tourism rolling. In fact, the understanding of sustainable tourism is influenced by more complex factors such as the enabling environment and opportunity for actually engaging in sustainable tourism development.

7.2.2.2 Perceived key aspects of sustainable tourism

The factor analysis revealed four key aspects of sustainable tourism. These included: perceived social costs; perceived economic benefits; planning for environmental sustainability; and participatory governance. The stakeholders exhibited a relatively high understanding of the significance of the quality of the environment, long term planning and strong participatory governance structure as the key element on which tourism depends and for initiating the process of sustainable tourism development in CKNP. Similar to earlier research findings (Udaya Sekhar, 2003; Walpole & Goodwin, 2001), the assumption that there is a link between tourism and conservation was supported.

The stakeholders had a sound understanding of the three dimensions of sustainable tourism, that is, economic, environmental, and social. These results were consistent with previous tourism research findings in that the local communities linked their quality of life to environmental sustainability and perceived economic benefits from sustainable tourism practices (McCool & Martin, 1994; Perdue et al., 1990; Ko & Stewart, 2002; Yu et al., 2011; Vargas-Sanchez et al., 2009). The stakeholders tended to agree that the government should contribute to environmental management and adopt a long-term planning approach to tourism development. They were in agreement that tourism development should contribute to community-centred benefits and that community development and involvement were important.

However, two new factors that emerged during the analysis which have not been indicated as factors in previous research studies on perceptions about sustainable tourism development were planning for environmental sustainability and participatory governance. These have direct practical implications related to the development of integrated policy and planning. Planning for environmental sustainability and participatory governance were considered by the stakeholders to be the primary goals of protected area tourism in CKNP. The protected area destination stakeholders strongly agreed that, in order to maintain their competitiveness, CKNP as a tourism destination will need to focus primarily on participatory planning and management for conservation and protection of the environment. This would require providing high quality visitor satisfaction through conservation of CKNP's natural and cultural heritage, and promoting positive environmental ethics and community development (active participation and capacity building). The results suggested that this understanding would be difficult to achieve unless supplemented by a bottom-up participatory governance structure.

7.2.2.3 Implication for an integrated and collaborative approach to tourism

Despite the stakeholders exhibiting a moderately high understanding of sustainable tourism, the findings indicated that there were serious challenges related to political will and the level of stakeholders' support and participation. Funding, human skills, and governance issues influenced the ability of stakeholders to realize sustainable tourism development objectives and to reach successful sustainable tourism development outcomes.

The absence of a well-formulated collaborative strategic planning and decision-making process hindered the process of consensus building for sustainable tourism development among these groups. The results suggest that the goal of sustainable tourism will be difficult to achieve without a bottom-up participatory governance structure. It is essential that stakeholders not only understand the concept of sustainable tourism, but they need to be involved and incorporated in the development of its policy, planning and management. Indeed, viewing the protected area as an integrated social–ecological system and achieving a greater integration among the stakeholders through participatory governance is essential so that destination stakeholders effectively internalize the concept of sustainable tourism.

At least five major policy directions can be offered based on the findings. These include: i) a participatory governance structure; ii) collaboration between protected area authorities and other stakeholder groups based on participatory decision-making and participatory strategic planning for adaptive management; iii) integrated social, economic and environmental assessment and monitoring; iv) strong communication and information sharing networks for knowledge management; and (v) opportunities and avenues for capacity building and place-based education.

7.2.3 Research question three

What are the stakeholders' perceptions about their capacity to engage in sustainable tourism?

The third research question examined the perceptions of the stakeholders about their capacity to get involved in sustainable tourism. The results of this analysis revealed factors such as inadequate opportunities for participation, lack of appropriate skills, lack of knowledge about rights and responsibilities and insufficient government support as the main barriers in the development of a collaborative sustainable tourism management system for CKNP. Because of these capacity deficits local communities have not been able to play any role in decision-making or the active management of tourism development in the CKNP.

The findings indicated that the major barrier to effective tourism development was the lack of community power in making decisions about tourism development programs. Local residents lacked the resources, skills and knowledge that could enable them to participate in tourism development. These findings are supported by Mwakaje et al. (2013), who referred to limitations such as lack of resources as well as inadequate communication and planning at the community level.

The findings imply that the personal development of NGOs and the protected area authorities has prevented them playing a significant role in building the capacity to provide opportunities to the local community needed for the implementation of sustainable tourism in CKNP. The results show that the community lacks the basic capacity, that is, skills, knowledge, resources and opportunity, to enable them to participate in the implementation and management of sustainable tourism development.

If the local communities are placed on the continuum of capacity shown in Chapter 2, they fall at the weakest end. They possess the understanding of sustainable tourism but do not have the capacity to realize their potential for improved livelihoods and protected area conservation through sustainable tourism development. Unfortunately, this weak capacity suggests they should make an effort to move towards the upper rungs of the capacity continuum.

Hence, the findings of this study imply that this inadequacy in capacity was a key barrier in promoting sustainable tourism as a tool for local livelihoods enhancement and conservation of CKNP. Without improving the capacity, the community will not be empowered and tourism in CKNP will be far from being sustainable. The findings of this study could be availed by the NGOs and protected area authorities for a reassessment of capacity for sustainable tourism development in CKNP.

7.2.3.1 Policy and management implications

The research enabled an analysis of the capacity amongst stakeholders and helped identify the elements of the system which constrained the collaborative approach required for sustainable tourism management. The evidence from this study suggested that a centralized governance structure did not encourage the capacity development initiatives needed to empower local stakeholders and to govern the complex dynamics of protected area tourism. It is suggested that greater emphasis needs to be placed on developing initiatives that allow for greater levels of capacity building which recognize the links between community capacity and community participation and collaborative management.

This research suggests that achieving the goal of community capacity building would require a major shift in the dynamics of the relationship between the protected area authorities and the local communities. Three elements about capacity development that require consideration are a participatory people-centred approach to community development, local communities' active role in decision-making, and a participatory planning system which would encourage participation and empowerment for greater coordination and self-reliance.

For a participatory governance approach to sustainable tourism in CKNP, the protected area authorities need to take a leadership role with the support of

international organizations to institute a policy change. This policy change can be instigated in cooperation with the local NGOs and buffer zone community organizational structures that protected area authorities, with the support of international NGOs, have established for resource conservation. They need to develop policies that incorporate the capacity needs of local communities for increased participation. They also need to provide opportunities for capacity development at three levels:

First, at systems level, the protected area authorities and local communities must increase their knowledge about tourism as an integrated social-ecological system rather than just a fragmented sector. In doing so, they need to engage in active research and develop social, economic and environmental indicators for bench marking, monitoring and performance assessment.

Second, the protected area authorities, the international and local NGOs and local community groups need to integrate their resources and expertise at the organizational level for a participatory governance structure and create opportunities to collaborate and cooperate for institutional strengthening and adaptive management.

Third, at management level, a participatory protected area policy and planning process needs to be in place to integrate the conservation, tourism and livelihood objectives for sustainable tourism development.

Finally, this holistic and integrated systems approach will facilitate in creating networks of individuals, organizations and society as a whole generating knowledge, skills, resources, and opportunities for sustainable tourism development.

The research addressed the question as to what extent a deficit of local participation and community capacity influenced the development and management of sustainable tourism in an integrated way in CKNP with centralized governance systems. There is a need for further research to explore the level of commitment among the stakeholder groups for developing partnerships and capacity for the establishment of a participatory governance system.

7.2.4 Research question four

What are the barriers and opportunities for sustainable tourism development in the protected area?

The fourth research question sought to examine the stakeholders' perceptions about sustainable tourism and the barriers and opportunities that could influence the development of a sustainable tourism management system in the park. Although the understanding of the meaning of sustainable tourism development among the stakeholder groups was good, the actions taken to put it into practice were disjointed rather than holistic.

An emergent finding of this analysis was that an understanding of stakeholder perceptions about sustainable tourism is essential, as their views represented the key elements deemed essential for sustainable protected area tourism specifically for CKNP. The issues identified during the analysis were linked to information and education, benefits and incentives, participation, inter-organizational linkages, governance, and political situation, and were similar to the factors identified in the quantitative analysis.

These issues indicated conflicts as well as synergies among the stakeholder groups' perceptions about the barriers and opportunities for sustainable tourism. The conflicts reflected a sense of disempowerment amongst stakeholders that was indicative of a tourism system that was far from sustainable. On the other hand, the synergetic perceptions about sustainable tourism in CKNP reflected the aspirations of stakeholders linked to tourism in terms of their livelihoods, a healthy economy, protection of the environment, and increased tourism.

Another issue that surfaced from the analysis was that these stakeholder groups with a myriad of perspectives on sustainable tourism were attempting to achieve sustainable tourism objectives in isolation. This issue of personal agendas undermined social capital building, development of political will, and collective learning. The feedback loops essential for inter-organizational communication and learning cannot be established while working in isolation from each other.

Based on the results of the research, Figure 7.1 illustrates the existing governance structure of CKNP. It is apparent that the relationships between the key interlinked factors affecting the structure are complex and non-linear. Unsustainable tourism is the consequence of an absence of integrated planning and participatory governance that underpins fragmented and uncoordinated management and weak policy and legislation.

Although international NGOs have provided significant financial and technical support for conservation and local livelihood development, their efforts have been uncoordinated and lacking any strategic planning. At present, the capacities of protected area authorities and international agencies working for CKNP are either inadequate or are not being used in a coordinated manner. For instance, different local and international NGOs and protected area authorities are carrying out isolated and irregular data collection, assessments, and community capacity building activities with little coordination and regularity. Monitoring and reporting of these activities are unsystematic, scattered, not well documented and rarely shared and communicated among these organizations, let alone the local communities.

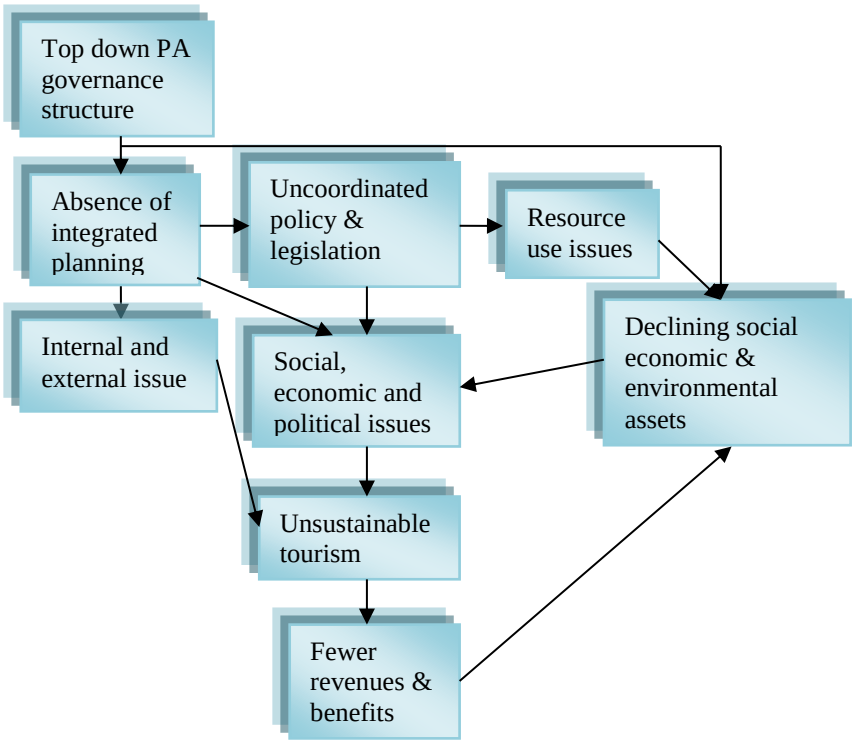

Figure 7.1: Existing governance structure of CKNP. Adapted from (Nguyen et al., 2011).

7.2.4.1 Policy and management implications

Coinciding with the current governance structure shown in Figure 7.1, the issues of empowerment and capacity building were emergent themes within this analysis.

The five overarching factors that the participants identified in quantitative and content analysis and that also recurred in the document analysis were participatory governance, skills and resources, awareness and information,

coordination and cohesion among stakeholders, and participatory planning and management, as shown in Table 7.1.

A sustainable tourism system requires that conflict is minimized and synergies are capitalized for collaborative arrangements between tourism stakeholders (Dredge, 2006a; Fyall et al., 2012). Understanding and taking stock of stakeholders' perceptions and involving them in decision-making through an informed strategic visioning and iterative planning process could minimize conflicts, increase synergies and augment their empowerment. Such a collaborative effort can improve trust, confidence and mutual understanding and can have a transformative effect on how stakeholders communicate, conceptualise their problems and build solutions (Bramwell & Sharman, 1999).

Table 7.1: Recurring factors for sustainable protected area tourism

Key Factors	**Quant**	**Cont**	**Doc**
Social costs	✓		
Economic benefits	✓	✓	
Planning for environmental sustainability	✓		
Participatory governance	✓	✓	✓
Community sense of ownership	✓		
Economic opportunities	✓	✓	
Decision-making	✓	✓	
Socio- ecological empowerment	✓		
Skills & resources	✓	✓	✓
Cooperation and coordination		✓	✓
Awareness and information	✓	✓	✓
Inadequate policy and legislation for protected areas			✓
Absence of transparency and accountability			✓
Lack of coordination and cohesion among the stakeholders groups	✓	✓	✓
Participatory planning and management	✓	✓	✓
Communication and dialogue		✓	
Political issues		✓	

Note : Quant=quantitative analysis; Cont= content analysis; Doc=document analysis

For collaboration to occur, partners should be able and willing to both generate and distribute knowledge. The advantage of knowledge and information sharing is that protected area authorities and other stakeholder groups can learn from each other in a collaborative network where issues can be discussed and resolved (Dredge et al., 2011). Considering the complex nature of a protected area tourism system that is chaotic and weak, it will be difficult to achieve sustainability unless an integrated systems approach to sustainable tourism management is in place.

7.3 Guideline for an integrated systems approach to sustainable tourism management in protected areas

The guideline proposed for an integrated systems approach to sustainable tourism management for CKNP is informed by key factors identified by the protected area destination stakeholders during the research (Table 7.1) that also coincide with the conceptual framework provided in Figure 2.9, the three components of United Nations Agenda 21 for sustainable tourism (Figure 7.2) and five stages of participatory strategic planning process as shown in Figure 7.3. The main purpose of this proposed guideline is to facilitate change towards an integrated systems approach that could assist in facilitating a shift towards sustainable tourism development in protected areas.

Figure 7.2: Key components of strategy for sustainable tourism. Adapted from (UNEP, 2003)

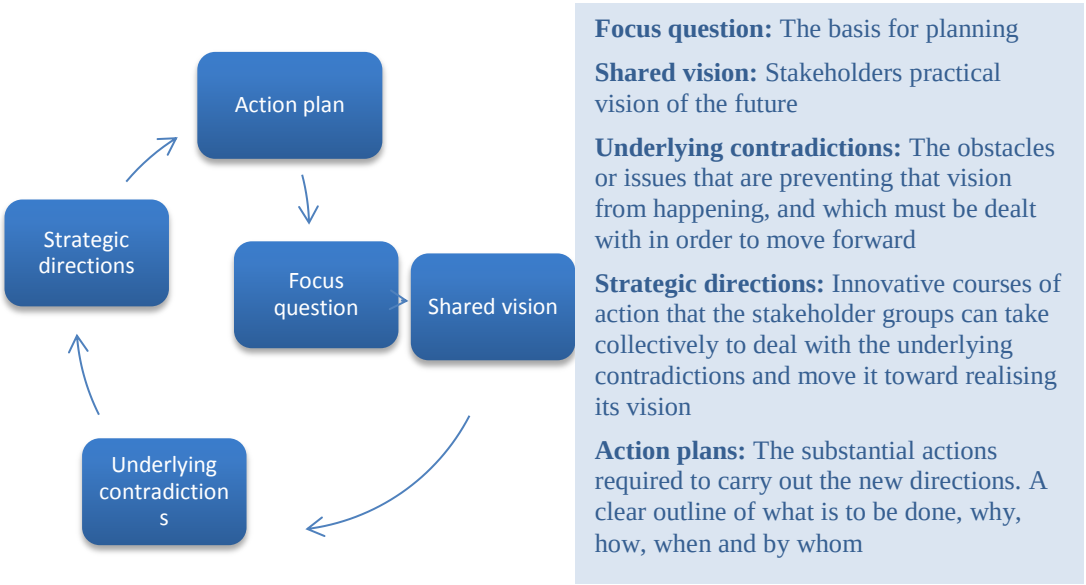

Figure 7.3: Participatory strategic planning. Adapted from (ICA-UK, 2009)

Protected areas with top-down management structures have been associated with major livelihood costs and conflict between local communities and protected area authorities (Coad et al., 2008).The guideline emphasizes the significance of developing an integrated strategy for sustainable tourism that could link biodiversity conservation and livelihoods with tourism development through a participatory governance process. The strategic plan that would be the outcome of a participatory strategic planning process (Figure 7.3) could then be used to generate information required to prepare action plans for sustainable tourism development for CKNP that integrate the social, environmental and economic dimensions of sustainability.

Figure 7.4 provides a broad guideline for initiating the participatory governance process for sustainable tourism drawing from *Agenda 21* components of sustainable tourism shown in Figure 7.2 and participatory strategic planning framework shown in Figure 7.3. It also links up with the conceptual framework given in Section 2.9 that depicts planning (exploration and strategic planning phase in the guideline); management (empowerment phase in the guideline); monitoring and evaluation (restructuring phase in the guideline) and adaptation (transformation phase in the guideline) as the key aspects in the management of the social-ecological system.

The guideline incorporates five interconnected phases: Exploration, Empowerment, Restructuring, Strategic Planning and Transformation. This guideline draws from an extensive literature review on conceptual and theoretical perspectives on governance, participatory planning and adaptive co-management (Bramwell, 2011; Hall, 2011; Dredge et al., 2011; Larson et al., 2012; Lockwood, 2010; Meisterheim et al., 2011; Moscardo, 2011; Plummer & Armitage, 2007; Plummer & Fennell, 2009; Roux & Foxcroft, 2011; Wray, 2011). It underpins the importance of meaningful collaboration of the stakeholder groups as a foundation on which the participatory governance structure is based.

Therefore, the exploration phase signifies the dialogue and consultation with the stakeholders as the first task in the development of a participatory governance structure. The conceptual frame work (Figure 2.9) also signifies the value of building shared vision and capacity as the key inputs at the initiation of participatory governance process. It should be undertaken before the actual planning process begins to develop a shared vision for sustainable protected area tourism.

The protected area authority is well placed to provide a leadership role in organizing and coordinating the participation of other stakeholder groups.

EXPLORATION Phase 1	EMPOWERMENT Phase 2	RESTRUCTURING Phase 3	STRATEGIC PLANNING Phase 4	TRANSFORMATION Phase 5
		INPUTS		
Spending time and resources on Stakeholders analysis Interest based negotiations Developing synergies through consultations Building social capital	**Creating opportunities for** Information and knowledge sharing Participatory and representative decision-making Capacity building Sustainable livelihoods Policy analysis	**Spending time and resources to** Define the social-ecological system Select methodologies for research, communication, facilitation and information sharing Reformulate policy and legislation Recognize and address knowledge gaps	**Spending time and resources to** Undertake current reality analysis Define key strategic goals Identify key actions, time lines, sources of revenue and funds and responsibilities of each stakeholder group Design an integrated participatory planning process	**Creating opportunities for** Translation of plans into practice through collaborative management Effective and impartial enforcement of policy and legislation Reviewing emerging issues and re-evaluating systems needs Communicating the results of action plans through feedback loops
		OUTCOMES		
Will lead to Common objectives Shared vision Mutual understanding of sustainability and participatory processes Relationships of trust and reciprocity	**Will lead to** A transparent structure for multi-stakeholder participation Agreements on coordination, cooperation and collective learning Participatory planning and management skills Entrepreneurial skills Commitment and ownership to the shared vision	**Will lead to** Key indicators for baseline studies and research Communication network for knowledge management Integrated tourism policy and legislation Capacity to identify key risks and manage them	**Will lead to** Baseline information on social, environmental and economic situation Long term strategic tourism plan close to the needs and expectations of the stakeholders Short term Integrated action plans	**Will lead to** A collaborative protected area management structure Transparent and accountable inter-organizational system New knowledge for reformulation of policy and plans Strong information sharing and knowledge management system Adaptive management through continuous improvement of management policies and practices by learning from feedback loops

Figure 7.4: A guideline for an integrated systems approach to sustainable tourism in protected areas

The empowerment phase focuses on establishing an integrated inter-organizational management structure such as a statutory committee or a board on protected area tourism that represents multiple stakeholders. Similar concept is evident in the conceptual framework Output level (Figure 2.9) where institutional strengthening collaboration and leadership are indicated as part of organizational management. Strong organizational support at the protected area systems level then becomes a lever of change for integrated adaptive management as shown in Figure 2.9. In other words, a core team is assembled that is willing to commit to steering the governance process, building relationships of trust, developing a transparent system and forming mutual agreements for collective action.

The stakeholder groups that make up the core team may include protected area authorities, tourism department, local community members, tourism enterprises, NGOs representatives and external experts. This core team is committed to the shared vision and creating opportunities for engaging and empowering the stakeholders through coordination, information sharing and capacity building.

Feedback is an integral component of sustainable tourism, as a lack of feedback in the development phase of tourism can result in dissatisfaction from many stakeholder groups regarding management strategies (Hardy, 2005). The restructuring phase consists of developing feedback loops (Smith et al., 2013;) through consultation and information sharing with the stakeholder groups to reformulate and integrate tourism within the protected area policy and legislation according to the identified social, ecological and economic needs of the system. These feedback loops are indicated in the conceptual framework (Figure 2.9) by the two way arrows and occur throughout the management and governance process as integrated management of a social-ecological tourism system is a cyclic process restructuring phase emphasises the initiation/re-initiation of the adaptive management process. It also involves collectively developing key indicators for monitoring the status of the social-ecological system and performance assessment. The restructuring phase is as inclusive as possible to understand the stakeholders' expectations, needs and level of satisfaction before policy and legislation are reformulated.

It is important that strategic planning and stakeholders' participation are integrated in the planning of sustainable tourism (Ruhanen, 2004). The strategic

planning phase brings together all the internal and external stakeholders (experts) to collectively develop the long term integrated strategic plan and formulate short term action plans for sustainable tourism. As strategic planning is unique to the context of the protected area, there is no prescriptive process. It involves intensive research and knowledge generation for informed decisions. It is the transformation phase when the strategic plan for sustainable tourism is implemented.

The final transformational phase is both the means and end of the governance process as it is iterative in nature. When the strategic plan is executed the complex and unpredictable nature of the social-ecological system generates changes resulting in new information and new questions (Meisterheim et al., 2011). The emergent information and issues are linked back to the exploration phase. This linkage is made possible through the feedback loops developed during networking and information sharing (Elbakidze et al., 2010; Roux & Foxcroft, 2011). As the conceptual framework (Figure 2.9) also indicates, the purpose is revisited and adaptations are made and informed decisions taken for the next policy and planning process to assist in managing and steering the protected area system towards sustainable tourism. The phases in the participatory governance process can occur sequentially, building on each previous phase, or could be adjusted according to the situation and need of the system.

It is based on an iterative planning process to ensure continuous progression for participatory and inclusive decision-making and adaptive management. During the participatory governance process different aspects of this integration are visible in each phase of the guideline, as shown in Figure 7.5. The guideline underscores the significance of applying an integrated systems approach to tourism management in protected areas as it is required to address the complexity inherent within the protected area tourism system (Plummer & Fennell, 2009; Schianetz & Kavanagh, 2008). In line with the conceptual frame work (Figure 2.9), it presents a framework for dealing with uncertainty, measuring progress and building capacity to resolve highly complex management issues related to equally complex social-ecological system through continual knowledge generation (Nguyen et al., 2011).

Figure 7.5: Aspects of integration at different levels of participatory governance process

It is anticipated that if such a guideline with a systems approach to management is operationalized then the existing governance structure of protected areas that depicts unsustainable tourism, as shown in Figure 7.2, could transform into a system that strives to achieve the sustainable tourism objectives of livelihood development and conservation, as shown in Figure 7.6.

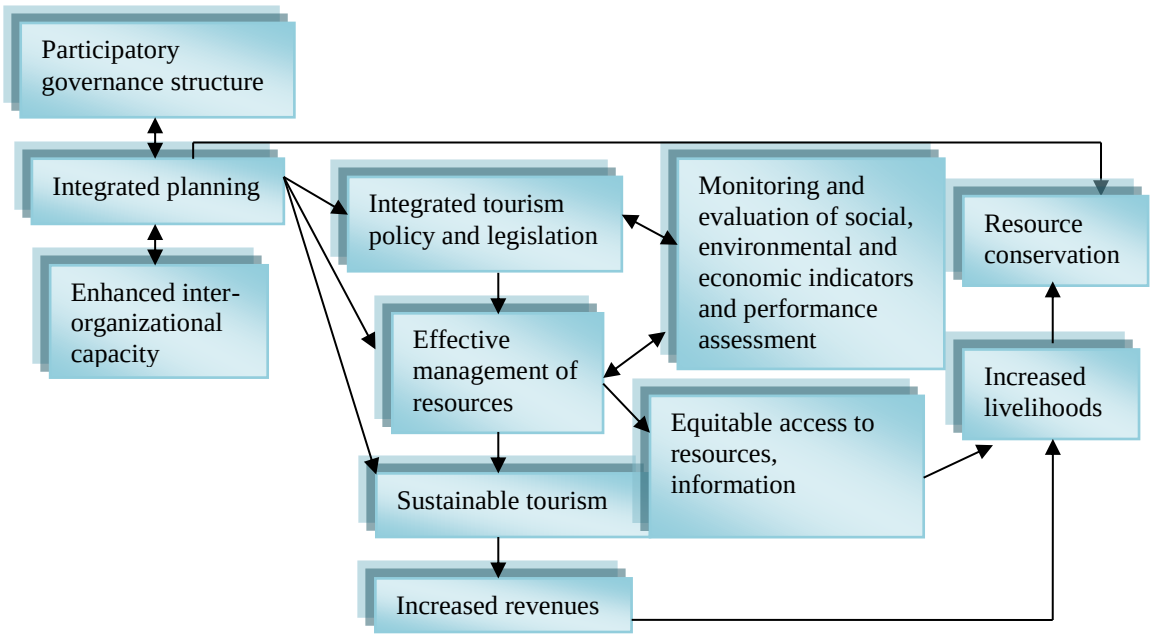

Figure 7.6: Integrated participatory governance structure for protected area tourism

The results of the research, based on the stakeholders' perceptions, indicate that these objectives could be achieved through an integrated participatory planning and management process at systems level as indicated in the conceptual framework

(Figure 2.9). It needs to be an iterative and inclusive process that encourages a collaborative management and governance structure, along with the capacity for research, knowledge exchange and interactive decision-making to adapt to and manage change at systems level. Such a resilient system could then be prepared for sustainable tourism that brings holistic benefits to the environment, society and the economy (Dwyer, 2005; Lane, 2009; McGehee, 2012).

7.4 Contribution of the research

The research has made a significant contribution to the field of protected area tourism. Its contribution to theory is substantial as the research developed its theoretical basis on four contemporary theories, namely, sustainability, stakeholder, collaboration and complexity theories, to study the complex protected area tourism system. The conceptual perspectives of these theories were integrated and viewed holistically to develop a sound theoretical foundation for a practical sustainable tourism guideline for protected areas. The stakeholder theory emphasised the need to examine the diversity of interests and concerns within multiple stakeholder groups. Complexity theory provided the basis to understand the complex interactions of these stakeholders within environmental, economic and social dimensions of sustainability theory; and collaboration theory provided a mechanism for a collective, collaborative response to cope with the issues arising from this complex interrelationship of tourism with conservation and local livelihoods.

Methodologically, the research was able to combine different research methods such as surveys, content and document analysis. By doing so it enabled the researcher to investigate the research issues in depth and explore the linkages between the four theories and their practical implications for sustainable tourism in protected areas. The mixed methods approach offered a strong non-linear emphasis as it was informed by inductive findings from qualitative analysis. Moreover, it provided the basis for triangulating these inductive findings with findings from the deductive analysis performed through a survey. The mixed method approach proved useful in providing a synthesized and reasoned method of investigation.

The research contributed to both theory and practice. The research envisaged protected area tourism as a complex and dynamic social-ecological system; the tourism, local communities and protected area authorities rely on its environment as

their primary resource, creating a dynamic and complex relationship between tourism, livelihood and conservation. The research, therefore, provided a theoretical basis for the importance of systems value creation and understanding of risk and uncertainty among the stakeholder groups. It identified a high level of cooperation and coordination and knowledge and learning to maximize stakeholders' efforts for collaboration. In other words, it proposed a multi-dimensional theoretical approach to sustainable tourism management in protected areas.

The research made a significant contribution at policy level. There is no previous research that simultaneously assesses the perceptions of multiple stakeholders on their interest, understanding and capacity for sustainable tourism and identifies key factors for an integrated systems approach to sustainable tourism management in protected areas. The research examined sustainable tourism from the perceptions of key stakeholder groups and identified key governance factors emerging from their perceptions that could influence the development of an integrated systems approach to tourism management in protected areas.

Keeping these factors in perspective, an integrated systems approach guideline was developed to capture key forces and dynamics affecting the protected area. The research provided an unconventional planning and governance framework for tourism in protected areas. The framework addresses calls in the literature for revised approaches based on adaptive management and systems thinking. The guideline could serve as a collaborative platform for sustainable tourism management and social, economic and environmental development in the CKNP. The process approach used in this study could be adapted for other protected areas in Pakistan and elsewhere.

Finally, the research explored the implications of tourism as a complex system from the perspectives of multiple stakeholders in a real situation and context. This research bridged the existing gap in knowledge by obtaining additional insights, perhaps overlooked in previous studies, on factors that, from the stakeholders perspectives, are required to adopt an integrated systems approach to sustainable tourism in alpine protected areas particularly, in CKNP. The research has made an important practical contribution to understanding tourism in protected areas, particularly with regard to the key concepts discussed in this research linking tourism, livelihood and conservation. The findings and recommendations of this

research are expected to be particularly useful to policy-makers, protected area managers, and practitioners, in terms of the factors that require noteworthy attention if tourism is to positively contribute to local livelihoods and conservation. Although the study was limited to CKNP, it is expected that the findings can be used and applied in other alpine protected area destinations.

7.5 Suggestions and recommendations for future studies

While this preliminary study provides initial data, more extensive research should be conducted. Future research should take several things into consideration. The size of the sample for each stakeholder group should be larger to develop a better understanding of the individual stakeholder groups' attitudes and perceptions of tourism and the environment.

Tourism in CKNP offers tremendous research opportunities as there has been very little research on the status of tourism in CKNP. There is no time line data available on the number and types of tourists entering CKNP. Without such data it will not be possible to assess the carrying capacity of the destination and to plan for sustainable tourist management in the Park. There are multiple governance issues that impede the process of protected area management in CKNP.

A time line research is required on tourists and their activities and on the effects of tourism on CKNP natural resources. This research needs to be integrated with other research projects that provide time series data on the social, economic and environmental aspects of CKNP and the local communities residing in the buffer zone. In other words, long term research initiatives are required that can help identify the environmental pressures on the park, the social issues of the buffer zone communities and the potential of tourism as a tool for conservation and livelihood development.

Moreover, the issues of cooperation, networking, and of forming alliances require further intensive research. Future research efforts should also explore resident perceptions of what is actually involved in applying the principles of sustainability to their communities on a practical level.

CKNP requires a sustainable tourism policy framework, which is presently missing, as a first step towards sustainable tourism development. This policy framework needs to be developed through full participation of representatives of all

the stakeholder groups which have a stake in tourism in Gilgit-Baltistan/CKNP. A long term research project is required to conduct and evolve a participatory planning and policy development process that is truly collaborative in essence and that incorporates both research and management options for CKNP. Research is required to assess the present governance structure and its policy and management implications for CKNP and other protected areas in Gilgit-Baltistan.

The research findings also point to a number of important protected area tourism issues in general that require due consideration in protected area tourism research. Further research is required to explore the implications of stakeholders' partnerships on protected area tourism governance, which has been the topic of limited research to date. Key partner-related, process-related and context-related success factors behind successful protected area tourism partnerships need to be explored in-depth by interviewing partners for their views on partnership success.

7.6 Conclusion

The purpose of this research was to investigate how the concept of sustainable tourism was perceived by different protected area destination stakeholders and how complexity theory and stakeholder and collaboration theories were useful in understanding and acknowledging the assumption of protected area tourism as a social-ecological system. Based on mixed methods research, in a remote alpine national park, the analytical discourse of this research assessed how different stakeholders conceptualized and understood the linkages between the environment and tourism, and tourism and livelihoods.

The contributing and requisite factors for a sustainable tourism management approach were obtained from factor analysis of four sub-scales used in the quantitative analysis, as well as content analysis of interviewees' perceptions and document analysis. These factors were aligned with the approaches for sustainable tourism and protected area management mentioned in earlier research and fitted well within the theoretical frameworks of complexity, stakeholder and collaboration theories, and substantiated the sustainable development principles.

The protected area tourism system was discerned as a social-ecological system with complex interrelationships between tourism conservation and livelihoods that could be susceptible to unpredictable changes. To address the

challenges associated with these changes the research suggested the development of an integrated tourism management system that could evolve through a participatory governance process. A five phase guideline was suggested to shift the impetus from a top-town, weak and unapproachable governance structure to an integrated systems perspective that would create opportunities for increased coordination and cooperation, information sharing for increased transparency, and capacity building for adaptive collaborative management.

To sum up, the protected area tourism system is too complex to be governed by a single agency with a single agenda (Zubra et al., 2012). Such a governance model seeks to optimize particular system elements at the expense of others and focuses on protective strategies alone (Smith et al., 2013). Therefore, it requires a collaborative governance structure comprising multiple partners; a governance structure that engages these stakeholders in broader decision-making supportive of social-ecological resilience (Smith et al., 2013). The five phase process provided in the guideline is suggested to ensure a complex systems perspective that creates opportunities to deal with change and emergent properties; rather than a predetermined top-down governance system that disregards the participation of key stakeholder groups in planning and decision-making.

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Appendix 1(a)

Survey Questionnaire
Park Authorities

Section 1

1. What is your position in the protected area authority?

2. How long have you been employed in
   (a) This position
   (b) The protected area authority

3. What are the major roles and responsibilities of your position?

(Please tick the appropriate box.)

4. Are you a

1 □ female 2 □ male

5. Which is the highest level of education you have completed?

1□ secondary 2□ diploma/certificate 3□ bachelor's degree
4□ master's degree 5□ other (please specify):

6. What Type of Professional Training do you have?

7. Work Experience

□ Less than 1year □ 1-4 year □ 4-8 year □ 8-12 year □ 12-16 year
□ 16years or more

8. Which age bracket do you fall into?

1 □ 18-24 2 □ 25-34 3 □ 35-44 4 □ 45-54 5 □ 55-64 6 □ 65 or more

9. Any comments?

Section 2
1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

A	**To what extent do you agree or disagree with each of the following statements? Please circle one**					
1	We are approaching the limit of the number of people the Earth can support	1	2	3	4	5
2	Humans have the right to modify the natural environment to suit their needs	1	2	3	4	5
3	When humans interfere with nature, it often produces disastrous consequences	1	2	3	4	5
4	Human ingenuity will ensure that we do not make the	1	2	3	4	5

	Earth unlivable					
5	Humans are severely abusing the environment	1	2	3	4	5
6	The Earth has plenty of natural resources if we just learn how to develop them	1	2	3	4	5
7	Plants and animals have as much right as humans to exist	1	2	3	4	5
8	The balance of nature is strong enough to cope with the impacts of modern industrial nations	1	2	3	4	5
9	Despite our special abilities, humans are still subject to the laws of nature	1	2	3	4	5
10	The so-called ecological crisis facing humankind has been greatly exaggerated	1	2	3	4	5
11	The Earth is like a spaceship with very limited room and resources	1	2	3	4	5
12	Humans were meant to rule over the rest of nature	1	2	3	4	5
13	The balance of nature is very delicate and easily upset	1	2	3	4	5
14	Humans will eventually learn enough about how nature works to be able to control it	1	2	3	4	5
15	If things continue on their present course, we will soon experience a major ecological catastrophe	1	2	3	4	5

Section 3

1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

	To what extent do you agree or disagree with each of the following statements? Please circle one					
1	There should be unlimited tourists in the park	1	2	3	4	5
2	The tourists have the right to use the recreational resources in any way they want	1	2	3	4	5
3	Proper tourism development requires that wildlife and natural habitats be protected at all times	1	2	3	4	5
4	The park's environment must be protected now and for the future	1	2	3	4	5
5	Tourism must be developed in harmony with the natural and cultural environment	1	2	3	4	5
6	I believe tourism development needs well- coordinated planning	1	2	3	4	5
7	Tourism development plans for the park should be continuously improved	1	2	3	4	5
8	I believe tourism in the park should be a strong economic contributor to the community	1	2	3	4	5
9	Tourism in the park should bring new income to the community	1	2	3	4	5
10	I think tourism businesses in the park should hire at least one-half of their employees from within my community	1	2	3	4	5
11	Community residents should receive a fair share of benefits from tourism in the park	1	2	3	4	5
12	The tourism businesses in the park should obtain at least one-half of their goods and services from within community	1	2	3	4	5
13	Tourism businesses must contribute to community improvement funds	1	2	3	4	5
14	Tourism should create new markets for local products	1	2	3	4	5

14	Tourism businesses must monitor visitor satisfaction	1	2	3	4	5
16	Tourism businesses must ensure good quality tourism experiences for visitors	1	2	3	4	5
17	Full participation in tourism decision-making by everyone in the community is a must for successful tourism development	1	2	3	4	5
18	Community residents should be given more opportunities to invest in tourism	1	2	3	4	5
19	I think residents must be encouraged to assume leadership roles in tourism committees	1	2	3	4	5

Section 4

1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

The park authorities have the capacity to enhance the community's						
1	Environmental awareness	1	2	3	4	5
2	Leadership skills	1	2	3	4	5
3	Conflict resolution skills	1	2	3	4	5
4	Business skills	1	2	3	4	5
The income generated from tourism covers the						
5	Conservation costs of the park	1	2	3	4	5
6	Social development costs of the community	1	2	3	4	5
The park authorities have the expertise for park personnel training in						
7	Spatial data analysis	1	2	3	4	5
8	Land use planning	1	2	3	4	5
9	Financial management	1	2	3	4	5
10	Human Resource management	1	2	3	4	5
11	Ecotourism	1	2	3	4	5
12	Ecological research and monitoring	1	2	3	4	5
13	Performance evaluation	1	2	3	4	5
To what extent do you agree or disagree with the following statements?						
14	The PA authorities has qualified park staff to carry out participatory planning processes	1	2	3	4	5
15	The PA authorities has a lack of funds and equipment for the management of the park	1	2	3	4	5
16	The PA authorities has sufficient technical support for the management of tourism in the park	1	2	3	4	5
17	The PA authorities has external economic pressures, such as pressures to exploit the resources of the protected area	1	2	3	4	5
18	The PA authorities have strongly developed communications with the public and other stakeholders	1	2	3	4	5
19	The PA authorities has enough funds to develop appropriate visitors facilities	1	2	3	4	5

Thank you for completing this survey. Your time and responses are much appreciated.

Appendix 1(b)

Survey Questionnaire
Local Communities

Section 1

1 How long have you lived in this region?

2 Are you familiar with the Khunjerab National Park? □ Yes □ No

3 What is your connection to the KNP? *(Please tick all that apply)*

1 □ I live in the Park 2 □ I have family or friends in the Park 3 □ I work for the Park
4 □ I own a business in the Park 5 □ other (please specify)

Something about you *(Please tick the appropriate box)*

5 What is your occupation? _____

6 Which age bracket do you fall into?

1 □ 18-24 2 □ 25-34 3 □ 35-44 4 □ 45-54 5 □ 55-64
6 □ 65 or more

7 Are you a

1 □ Female 2 □ Male

8 Which is the highest level of education you have completed?

1 □ pre-primary 2 □ primary 3□ secondary
4 □ diploma/certificate 5 □ bachelor's degree 6□ master's degree
7 □ other (please specify)

9 Are you involved in tourism in the KNP? *(Please tick all that apply)*

1 □ I am not involved. 2 □ I don't know if I am involved.
3 □ I am involved as a host for visitors
4 □ I am involved as an employee in a tourism business.
5 □ I am involved as an owner of tourism related business
6 □ I am involved in tourism as a volunteer.
7 □ I am involved as a tourism consultant
8 □ I am involved in tourism planning processes.
9 □ I am involved in tourism development
10 □ I am involved in tourism decision-making
11 □ I am involved in other ways. (Please specify)

10 Which annual income level do you fall into?

1□ Less than Rs 100,000 2 □ Rs 100000 -200000 3□ Rs 200000-3000000
4□ Rs 300000-400000 5□ Rs 400000-500000 6□ Rs 600000-700000

7□ Rs 700000-800000 8□ Rs 800000-900000 9□ Rs 900000-1000000 10□ Rs 10000000 or more

Section 2

1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

A	**To what extent do you agree or disagree with each of the following statements? Please circle one**					
1	We are approaching the limit of the number of people the Earth can support	1	2	3	4	5
2	Humans have the right to modify the natural environment to suit their needs	1	2	3	4	5
3	When humans interfere with nature, it often produces disastrous consequences	1	2	3	4	5
4	Human ingenuity will ensure that we do not make the Earth unlivable	1	2	3	4	5
5	Humans are severely abusing the environment	1	2	3	4	5
6	The Earth has plenty of natural resources if we just learn how to develop them	1	2	3	4	5
7	Plants and animals have as much right as humans to exist	1	2	3	4	5
8	The balance of nature is strong enough to cope with the impacts of modern industrial nations	1	2	3	4	5
9	Despite our special abilities, humans are still subject to the laws of nature	1	2	3	4	5
10	The so-called ecological crisis facing humankind has been greatly exaggerated	1	2	3	4	5
11	The Earth is like a spaceship with very limited room and resources	1	2	3	4	5
12	Humans were meant to rule over the rest of nature	1	2	3	4	5
13	The balance of nature is very delicate and easily upset	1	2	3	4	5
14	Humans will eventually learn enough about how nature works to be able to control it	1	2	3	4	5
15	If things continue on their present course, we will soon experience a major ecological catastrophe	1	2	3	4	5

Section 3

1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

	To what extent do you agree or disagree with each of the following statements? Please circle one					
1	There should be unlimited tourists in the park	1	2	3	4	5
2	The tourists have the right to use the recreational resources in any way they want	1	2	3	4	5
3	Proper tourism development requires that wildlife and natural habitats be protected at all times	1	2	3	4	5
4	The park's environment must be protected now and for the future	1	2	3	4	5
5	Tourism must be developed in harmony with the natural and cultural environment	1	2	3	4	5
6	I believe tourism development needs well- coordinated planning	1	2	3	4	5
7	Tourism development plans for the park should be continuously improved	1	2	3	4	5

8	I believe tourism in the park should be a strong economic contributor to the community	1	2	3	4	5
9	Tourism in the park should bring new income to the community	1	2	3	4	5
10	I think tourism businesses in the park should hire at least one-half of their employees from within my community	1	2	3	4	5
11	Community residents should receive a fair share of benefits from tourism in the park	1	2	3	4	5
12	The tourism businesses in the park should obtain at least one-half of their goods and services from within community	1	2	3	4	5
13	Tourism businesses must contribute to community improvement funds	1	2	3	4	5
14	Tourism should create new markets for local products	1	2	3	4	5
14	Tourism businesses must monitor visitor satisfaction	1	2	3	4	5
16	Tourism businesses must ensure good quality tourism experiences for visitors	1	2	3	4	5
17	Full participation in tourism decision-making by everyone in the community is a must for successful tourism development	1	2	3	4	5
18	Community residents should be given more opportunities to invest in tourism	1	2	3	4	5
19	I think residents must be encouraged to assume leadership roles in tourism committees	1	2	3	4	5

Section 4

1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

To what extent do you agree or disagree with each of the following statements please circle one						
1	I have the skills to produce tourism products	1	2	3	4	5
2	Local people are hired for tourism related jobs	1	2	3	4	5
3	I have the skills to market tourism products	1	2	3	4	5
4	Our community has strong and organized formal and informal subgroups and/or organizations	1	2	3	4	5
5	Our community is strong with effective conflict resolution skills	1	2	3	4	5
6	I earn income by hosting tourists	1	2	3	4	5
Our community works as a partner with						
7	Our community works as a partner with the tourism organizations	1	2	3	4	5
8	Our community works as a partner with park authority	1	2	3	4	5
Our community has legal rights in the park resource use zone to: Please circle one use						
9	Our community has legal rights in the park resource use zone to Graze	1	2	3	4	5
10	Our community has legal rights in the park resource use zone to Hunt	1	2	3	4	5

11	Our community has legal rights in the park resource use zone to Collect fuel wood	1	2	3	4	5
12	I am able to use the above mentioned rights freely	1	2	3	4	5
Our community participates in meetings organized by the park authorities concerning: Please circle one						
13	Our community participates in meetings organized by the park authorities concerning tourism management planning of the park	1	2	3	4	5
14	Our community participates in meetings organized by the park authorities concerning Management of the park	1	2	3	4	5
15	Our community participates in meetings organized by the park authorities concerning Monitoring of the park	1	2	3	4	5
16	Our community participates in meetings organized by the park authorities concerning Resource use in the park	1	2	3	4	5
To what extent do you agree or disagree with the following: Please circle one						
17	I feel that our community plays a major role in the conservation of the park	1	2	3	4	5
18	Tourism revenues from the park support community development projects	1	2	3	4	5
19	Tourists disrupt the village environment	1	2	3	4	5

Thank you for completing this survey. Your time and responses are much appreciated

Appendix 1(c)

Survey Questionnaire
Tourism Enterprises

Section 1

1. What is the name of the tourism business you work with?

(Please tick the appropriate box.)

2. What type of tourism business is this enterprise?

□ accommodation □ attraction □ tour operator □ transport □ other (please specify)

3. How many employees (including owner/operators) work in the business?

□ 1-4 (small business) □ 5-20 (medium business) □ 21 or more (large business)

4. What is your role in this business?

□ owner/operator □ manager □ other (please specify

5 What is your occupation? _____

6 How many employs you have in your business_____

7 How many local employees (from the Park) you have in your business_____

8 Which age bracket do you fall into?

1 □ 18-24 2 □ 25-34 3 □ 35-44 4 □ 45-54 5 □ 55-64 6 □ 65 or more

9 Are you a

1 □ female 2 □ male

10 Which is the highest level of education you have completed?

□ secondary □ diploma/certificate □ bachelor's degree □ master's degree □ other please specify

11 Which annual income level do you fall into?

1□ Less than Rs 100,000 2□ Rs 100000 -200000 3□ Rs 200000-3000000
4□ Rs 300000-400000 5□ Rs 400000-500000 6□ Rs 600000-700000
7□ Rs 700000-800000 8□ Rs 800000-900000 9□ Rs 900000-1000000

10□ Rs 10000000 or more

Section 2

1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

A	**To what extent do you agree or disagree with each of the following statements? Please circle one**					
1	We are approaching the limit of the number of people the Earth can support	1	2	3	4	5
2	Humans have the right to modify the natural environment to suit their needs	1	2	3	4	5
3	When humans interfere with nature, it often produces disastrous consequences	1	2	3	4	5
4	Human ingenuity will ensure that we do not make the Earth unlivable	1	2	3	4	5
5	Humans are severely abusing the environment	1	2	3	4	5
6	The Earth has plenty of natural resources if we just learn how to develop them	1	2	3	4	5
7	Plants and animals have as much right as humans to exist	1	2	3	4	5
8	The balance of nature is strong enough to cope with the impacts of modern industrial nations	1	2	3	4	5
9	Despite our special abilities, humans are still subject to the laws of nature	1	2	3	4	5
10	The so-called ecological crisis facing humankind has been greatly exaggerated	1	2	3	4	5
11	The Earth is like a spaceship with very limited room and resources	1	2	3	4	5
12	Humans were meant to rule over the rest of nature	1	2	3	4	5
13	The balance of nature is very delicate and easily upset	1	2	3	4	5
14	Humans will eventually learn enough about how nature works to be able to control it	1	2	3	4	5
15	If things continue on their present course, we will soon experience a major ecological catastrophe	1	2	3	4	5

Section 3

1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

	To what extent do you agree or disagree with each of the following statements? Please circle one					
1	There should be unlimited tourists in the park	1	2	3	4	5
2	The tourists have the right to use the recreational resources in any way they want	1	2	3	4	5
3	Proper tourism development requires that wildlife and natural habitats be protected at all times	1	2	3	4	5
4	The park's environment must be protected now and for the future	1	2	3	4	5
5	Tourism must be developed in harmony with the natural and cultural environment	1	2	3	4	5
6	I believe tourism development needs well- coordinated planning	1	2	3	4	5
7	Tourism development plans for the park should be continuously improved	1	2	3	4	5
8	I believe tourism in the park should be a strong	1	2	3	4	5

	economic contributor to the community					
9	Tourism in the park should bring new income to the community	1	2	3	4	5
10	I think tourism businesses in the park should hire at least one-half of their employees from within my community	1	2	3	4	5
11	Community residents should receive a fair share of benefits from tourism in the park	1	2	3	4	5
12	The tourism businesses in the park should obtain at least one-half of their goods and services from within community	1	2	3	4	5
13	Tourism businesses must contribute to community improvement funds	1	2	3	4	5
14	Tourism should create new markets for local products	1	2	3	4	5
14	Tourism businesses must monitor visitor satisfaction	1	2	3	4	5
16	Tourism businesses must ensure good quality tourism experiences for visitors	1	2	3	4	5
17	Full participation in tourism decision-making by everyone in the community is a must for successful tourism development	1	2	3	4	5
18	Community residents should be given more opportunities to invest in tourism	1	2	3	4	5
19	I think residents must be encouraged to assume leadership roles in tourism committees	1	2	3	4	5

Thank you for completing this survey. Your time and responses are much appreciated

Appendix 1(d)

Survey Questionnaire
Tourists

Section 1

(Please tick the appropriate box)
1. How many times have you visited the national park in the last two years?

1□ this is my first time 2□ this is my second time 3□ about 3-5 times
4□more than 5 times

2. What is your main reason for visiting the park?

1□ interest in nature 2□ meeting relatives' 3□ camping 4□ hiking
5□ adventure 6□ recreation 7□ other (please specify)

3 Which age bracket do you fall into?

1 □ 18-24 2 □ 25-34 3 □ 35-44 4 □ 45-54 5 □ 55-64 6 □ 65 or more

4 Are you a

1 □ Female 2 □ Male

5 What is the highest level of education you have obtained?

1 □ pre-primary 2 □ primary 3 □ secondary 4 □ diploma/certificate
5 □ bachelor's degree 6 □ masters degree 7 □ other please specify

6 Which annual income level do you fall into?

01 □ Less than Rs 100,000 02 □ 100,000 -200,000 03 □ 200,000-300,000
04 □ 300,000-400,000 05 □ 400,000-500,000 06 □ 600,000-700,000
07 □ 700,000-800,000 08 □ 800,000-900,000 09 □ 900,000-1,000,000

10 □ 10,000,000 or more

7 What is your occupation? _____

8 Are you

□ Domestic tourist
□ International tourist

9 What is your country of origin? _____

Section 2

1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

A	**To what extent do you agree or disagree with each of the following statements? Please circle one**					
1	We are approaching the limit of the number of people the Earth can support	1	2	3	4	5
2	Humans have the right to modify the natural environment to suit their needs	1	2	3	4	5
3	When humans interfere with nature, it often produces disastrous consequences	1	2	3	4	5
4	Human ingenuity will ensure that we do not make the Earth unlivable	1	2	3	4	5
5	Humans are severely abusing the environment	1	2	3	4	5
6	The Earth has plenty of natural resources if we just learn how to develop them	1	2	3	4	5
7	Plants and animals have as much right as humans to exist	1	2	3	4	5
8	The balance of nature is strong enough to cope with the impacts of modern industrial nations	1	2	3	4	5
9	Despite our special abilities, humans are still subject to the laws of nature	1	2	3	4	5
10	The so-called ecological crisis facing humankind has been greatly exaggerated	1	2	3	4	5
11	The Earth is like a spaceship with very limited room and resources	1	2	3	4	5
12	Humans were meant to rule over the rest of nature	1	2	3	4	5
13	The balance of nature is very delicate and easily upset	1	2	3	4	5
14	Humans will eventually learn enough about how nature works to be able to control it	1	2	3	4	5
15	If things continue on their present course, we will soon experience a major ecological catastrophe	1	2	3	4	5

Section 3

1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

	To what extent do you agree or disagree with each of the following statements? Please circle one					
1	There should be unlimited tourists in the park	1	2	3	4	5
2	The tourists have the right to use the recreational resources in any way they want	1	2	3	4	5
3	Proper tourism development requires that wildlife and natural habitats be protected at all times	1	2	3	4	5
4	The park's environment must be protected now and for the future	1	2	3	4	5
5	Tourism must be developed in harmony with the natural and cultural environment	1	2	3	4	5
6	I believe tourism development needs well- coordinated planning	1	2	3	4	5
7	Tourism development plans for the park should be continuously improved	1	2	3	4	5
8	I believe tourism in the park should be a strong economic contributor to the community	1	2	3	4	5
9	Tourism in the park should bring new income to the	1	2	3	4	5

	community					
10	I think tourism businesses in the park should hire at least one-half of their employees from within my community	1	2	3	4	5
11	Community residents should receive a fair share of benefits from tourism in the park	1	2	3	4	5
12	The tourism businesses in the park should obtain at least one-half of their goods and services from within community	1	2	3	4	5
13	Tourism businesses must contribute to community improvement funds	1	2	3	4	5
14	Tourism should create new markets for local products	1	2	3	4	5
14	Tourism businesses must monitor visitor satisfaction	1	2	3	4	5
16	Tourism businesses must ensure good quality tourism experiences for visitors	1	2	3	4	5
17	Full participation in tourism decision-making by everyone in the community is a must for successful tourism development	1	2	3	4	5
18	Community residents should be given more opportunities to invest in tourism	1	2	3	4	5
19	I think residents must be encouraged to assume leadership roles in tourism committees	1	2	3	4	5

Thank you for completing this survey. Your time and responses are much appreciated

Appendix 2

University of Southern

The University of Southern Queensland

Plain Language Statement

To: ***Participants***

Full Project Title: Towards an integrated systems approach to sustainable tourism management in protected areas

Student Researcher: Sophia Imran

You are invited to take part in a survey concerning sustainable tourism management in the Central Karakorum National Park. This project is being undertaken by Sophia Imran of the University of Southern Queensland as part of her PhD program.

Your participation in this survey will help the researcher to develop a better understanding of the level of interest understanding and capacity of the community, the park authorities and the tourism sector to implement a joint sustainable tourism management system in the protected area. The survey aims at studying the perceptions of different groups about conservation and sustainable tourism development. The anticipated outcome is to examine the views and objectives of the stakeholder groups who have a stake in and affiliation to the protected area and turn the objective of sustainable tourism development into a satisfying and realizable strategy that meets the social, economic and conservation needs of the protected area.

The results of this survey will contribute to sustaining and improving Central Karakorum National Park's image as a desirable travel destination, ensure and maintain high standards of environmental quality and balance needs and expectations of all affected parties in the tourism system.

About 350 participants are expected to take part in this survey. This research will make a significant contribution to park managers understanding of involving the community and the tourism sector in joint management of tourism in the National Park that benefits the conservation and improves the livelihoods of the community.

The questionnaire should take between 20-25 minutes to complete. Your participation in this study is voluntary. You are assured that your participation in this study is confidential. No names or other information that could personally identify you will be used in any written reports produced in the course of the research. At any stage, you have the right to withdraw from the study and to decline to answer any individual questions in the questionnaire and/or the interview. If, after participating in the survey, you change your mind and decide that you would rather not be involved, you will have the right to request the removal of any material you do not wish to be used.

All data collected and processed in the course of the study will be treated as strictly confidential and will be placed in a secure location. The results of this research will be published in academic papers and as a doctoral thesis and will be communicated to tourism operators and other public and private organizations involved in sustainable tourism development in protected areas. This study has received ethical approval from The University of Southern Queensland.

Queries or Concerns

Should you have any queries regarding the progress or conduct of this research, you can contact the principal researcher:

Sophia Imran

School of Accounting, Economics and Finance
University of Southern Queensland
88G, 537-561 West Street, Toowoomba QLD 4350, Australia

Phone: +61 7 4631 1363
Mobile: +61 0405094637

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please feel free to contact the University of Southern Queensland Ethics Officer on the following details.

Ethics and Research Integrity Officer
Office of Research and Higher Degrees
University of Southern Queensland
West Street, Toowoomba 4350
Ph: +61 7 4631 2690
Email: ethics@usq.edu.au

Appendix 3

Interview Questions Guide

1. What are the main social, ecological and economic issues arising from tourism that need to be addressed in the Park?
2. What are the major issues related to the development and implementation of tourism in the Park?
3. What in your view is the meaning of sustainable tourism?
4. Why in your view sustainable tourism development is important for the Park?
5. Do you believe the Park has a sustainable approach to tourism development planning and management? What are the key aspects that make it sustainable or unsustainable?
6. What in your view are the positive social and environmental impacts of tourism in the Park?
7. What in your view are the negative social and environmental impacts of tourism in the Park?
8. What are your expectations from tourism?
9. Are the revenues derived from tourism used for the benefit of the local community and the conservation of the park? If so How?
10. What opportunities does tourism in park offers you for social and economic development?
11. What conflicts, issues and challenges do you face with respect to use of natural resources in and around park?
12. What are the constraining factors that hinder your participation in the tourism planning and decision-making process?
13. What are the important factors (conditions required) that can increase your participation in tourism management in CINP as a key partner?
14. What are the opportunities available that can assist the tourism sector, the community and the park authority to work together to promote sustainable tourism?
15. Are there certain policies, laws and regulations that enhance or hinder joint tourism management in CINP? What are these?
16. Do you see any barriers to joint tourism management process? If so what are these? Do you think these can be overcome? How?
17. Are you aware of any joint projects between Park authority, the local community and the tourism sector in the park? If yes, please specify.
18. Are adequate resources available to manage community involvement in planning and management of the tourism in the park as partners? If not what can be done to generate these resources?
19. What kind of capacity you have to support tourism in the park?

Appendix 4

Focus Group questions Guide

1. Why is the park important to you?

2. Are you involved in planning and implementation of tourism in the Park? If not, would you like to be involved as partners?

3. Would you like to be involved as partners in planning and implementation of tourism in the park? Why? Why not?

4. Who do you think should be involved in the planning and decision-making process for tourism development in the park? Why?

5. What is needed to better engage and involve you in the planning and management of tourism in the park?

6. Is there anything that hinders collaborative tourism development in the park? If so What?

7. Are there opportunities for collaborative tourism development in the park? If so What?

8. Are there any conflicts between different interest groups concerning tourism development in the park?

9. What do you see as the key issues regarding the management of tourism in the Park?

10. Identify three things you would like to change about tourism in the park?