Conservation Governance and Management of Sagarmatha (Mt. Everest) National Park, Buffer Zone, and Buffer Zone Community Forest User Groups in Pharak, Nepal

Mingma Norbu Sherpa
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CONSERVATION GOVERNANCE AND MANAGEMENT OF SAGARMATHA
(MT. EVEREST) NATIONAL PARK, BUFFER ZONE, AND BUFFER ZONE
COMMUNITY FOREST USER GROUPS IN PHARAK, NEPAL

A Dissertation Presented

By

MINGMA NORBU SHERPA

Submitted to the Graduate School of the University of Massachusetts Amherst in partial fulfillment of the requirements for the degree of Doctorate in Philosophy.

DOCTOR OF PHILOSOPHY

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DEDICATION

This dissertation is dedicated to my parents Pemba Phutar Sherpa and Dalhamu Sherpa.
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I would like to thank my advisor, Stanley F. Stevens for his many years of thoughtful, untiring guidance and support. I would also like to extend my gratitude to the members of my committee, Piper Gaubatz, David Glassberg and Brian Conz for their comments and suggestions in all stages of this project.

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ABSTRACT

CONSERVATION GOVERNANCE AND MANAGEMENT OF SAGARMATHA (MT. EVEREST) NATIONAL PARK, BUFFER ZONE, AND BUFFER ZONE COMMUNITY FOREST USER GROUPS IN PHARAK, NEPAL

MAY 2013

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Directed by: Professor Stanley F. Stevens

Keywords: Conservation, political ecology, governance, national park, protected area, buffer zone, community forest, Mt. Everest, Sherpas, rights-based conservation, indigenous rights, devolution, decentralization, Sagarmatha National Park.

The aim of this dissertation is to assess the political ecology of conservation governance and management of Sagarmatha (Mount Everest) National Park (SNP), SNP Buffer Zone (BZ) and the Buffer Zone Community Forest User Groups (BZCFUG) in Pharak in northeastern Nepal. It evaluates their performance in two adjacent regions (Khumbu and Pharak) from multiple perspectives, including the views of the residents (indigenous Sherpa people and minority immigrant community members), and the standards of current international conservation and human rights policies. This research is important because it relates to global, regional, national and local level conservation policies and practices, which have direct impacts on biodiversity conservation, climate change adaptation, the livelihoods of indigenous peoples and local communities, and rights. The discussion of buffer zone community forest in the Pharak region follows my M.Sc. thesis completed at the University of Wales, UK in 2000.
This dissertation draws on my 2011 fieldwork and my long-time experience growing up in this region and working there for conservation and development organizations. I conducted qualitative research adopting field observation, semi-structured and focus group interviews and participating in BZ and BZCFUGs’ meetings. I observe that implementation of CFUG, BZCFUG and buffer zone management programs (BZMP) in Pharak and BZMP in Khumbu have made significant progress towards achieving conservation of forests, habitats, wildlife species and sustainable production of forest products while reinstituting forest and natural resource use and improving management and governance rights.

This suggests that community participation in forest commons and natural resource management and governance through devolution and decentralization of decision-making rights can achieve biodiversity conservation goals. By integrating indigenous peoples’ and local communities’ cultural and religious perspectives with scientific knowledge, a synergy can be achieved that benefits conservation. For this the free, prior and informed consent of the concerned indigenous peoples and local communities is prerequisite. Conservation goals need to consider the rights of indigenous peoples and local communities and meet their aspirations and international conservation standards of self-determination and autonomy.
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<td>International Union for Conservation of Nature and Natural Resources</td>
</tr>
<tr>
<td>INGO</td>
<td>International Non-Government Organization</td>
</tr>
<tr>
<td>KBC</td>
<td>Khumbu Bijuli Company</td>
</tr>
<tr>
<td>MFSC</td>
<td>Ministry of Forests and Soil Conservation</td>
</tr>
<tr>
<td>MCTCA</td>
<td>Ministry of Culture, Tourism and Civil Aviation</td>
</tr>
<tr>
<td>NTB</td>
<td>Nepal Tourism Board</td>
</tr>
<tr>
<td>NTNC</td>
<td>Nepal Trust for Nature Conservation</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Government Organization</td>
</tr>
<tr>
<td>REDP</td>
<td>Rural Energy Development Program</td>
</tr>
<tr>
<td>SAARC</td>
<td>South Asian Association for Regional Cooperation</td>
</tr>
<tr>
<td>SCAFP</td>
<td>Sagarmatha Community Agro-Forestry Project</td>
</tr>
<tr>
<td>SNP</td>
<td>Sagarmatha National Park</td>
</tr>
<tr>
<td>SNPBZ</td>
<td>Sagarmatha National Park Buffer Zone</td>
</tr>
<tr>
<td>SNPMTP</td>
<td>Sagarmatha National Park Management and Tourism Plan</td>
</tr>
<tr>
<td>SPCC</td>
<td>Sagarmatha Pollution Control Committee</td>
</tr>
<tr>
<td>TAAN</td>
<td>Trekking Agents Association of Nepal</td>
</tr>
<tr>
<td>TMI</td>
<td>The Mountain Institute</td>
</tr>
<tr>
<td>TRPAP</td>
<td>Tourism for Rural Poverty Alleviation</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Program</td>
</tr>
<tr>
<td>UNDRIP</td>
<td>United Nations Declaration on the Rights of Indigenous Peoples</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>VDC</td>
<td>Village Development Committee</td>
</tr>
<tr>
<td>WHS</td>
<td>World Heritage Site</td>
</tr>
<tr>
<td>WWF</td>
<td>World Wildlife Fund for Nature</td>
</tr>
</tbody>
</table>
CHAPTER 1
INTRODUCTION

1.1 Introduction

This dissertation is a study of conservation governance and management\(^1\) of
Sagarmatha (Mount Everest) National Park (SNP), Sagarmatha National Park Buffer
Zone (BZ) and the Buffer Zone Community Forest User Groups in Pharak in northeastern
Nepal. It assesses their performance from multiple perspectives, including the views of
resident, indigenous Sherpa people and minority immigrant community members who
live in different parts of the region and the standards of current international conservation
and human rights policies. The dissertation draws on my 2011 fieldwork and my long-
time experience growing up in this region and working there for conservation and
development organizations.

For my dissertation research I proposed several hypotheses:

1. The conservation governance and management of SNP, BZ and BZCFUG respect
   Sherpa’s cultural and religious beliefs and customary practices, and meets the
   scientific conservation standards in the world’s highest ecosystem and homeland
   of Sherpa people.

2. Sagarmatha National Park, Buffer Zone and Community Forests are state
   managed and governed protected areas, which address the aspiration of “new
   paradigm” conservation, respecting the rights of indigenous peoples;

3. Conservation governance and management practices applied to forests, wildlife,
   grazing commons and natural resources in SNP, BZ and BZCFUG are inclusive,
equitable, enhances livelihoods of Sherpa people and other ethnic minority groups.

For the assessing these hypotheses I collected data on present and past conservation governance and management practices by the state and by Sherpas through their customary institutions. Data collection also included recording of oral history and information on traditional conservation practices and customary laws followed by the Sherpa people, and their contributions to regional conservation (and correlations with modern scientific conservation) of forests, wildlife, environment, Sherpa culture and livelihood practices. In addition, I also collected data on tourism, agropastoralism and agriculture that have direct relation and implication with conservation governance and management in the Pharak and Khumbu regions.

Fieldwork data and my own experience lead me to several conclusions. First, I find that Sagarmatha National Park, which was initially designed by New Zealand to be managed in collaboration with the local Sherpa (who were to participate in an advisory committee that would participate in policy discussions and also serve as park wardens), has become a government-managed protected area (Stevens, 1993; forthcoming b,c,d). Secondly, the buffer zone management program (which was developed to address a park-people conflict rooted in wildlife damages to crops and livestock and pressure on park resources) is meant to have co-managed governance (Straede & Helles, 2000), but in effect is possibly managed more as a government managed protected area. Thirdly, while the Community Forest User Groups of Pharak which were established under the Nepal Community Forestry Act of 1993 were supposed to be community managed, the District Forest Office (DFO) instead handed oversight responsibility for them to SNP after buffer
zone was declared in 2002 (Sherpa, et al. 2008). Since 2002, under SNP oversight, the Buffer Zone Community Forest User Groups (BZCFUG) are now functioning more like co-managed or shared governance protected areas than the earlier CFUGs. Finally, the Pharak region faces a new challenge due to immigration pressure, particularly on forest conservation.

1.2 Significance of the Dissertation

This dissertation will contribute to the policy debate over ‘new paradigm’ conservation that has evolved since the Convention on Biological Diversity (CBD) of 1992 and the World Parks Congress (WPC) of 2003 (Phillips, 2003; Colchester, 2008; McNeely, 2008; IUCN/CEESP, 2010). The dissertation thus relates to global, regional, national and local level conservation policies and practices. These policies have direct impacts on sustainable biodiversity conservation and improvement of indigenous peoples’ and local communities’ livelihoods and rights-based conservation. In addition, the research contributes to the formulation of policy and planning of conservation governance and management of the Sagarmatha National Park and Buffer Zone that would better achieve the conservation goals set by CBD and WPC. Furthermore, the dissertation also contributes to the policy debate on implementation and implications of ILO (International Labor Organization) Convention 169 on the rights of Indigenous peoples and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) in relation to biodiversity conservation and indigenous peoples’ rights (Stevens 2009, 2010, forthcoming, a-d).
1.3 Objectives of the Research

The overall objective of the research was to understand the conservation governance and management of the Sagarmatha National Park and Buffer Zone. Specific objectives were to:

1. Assess types of IUCN’s conservation governance and management of the Sagarmatha National Park and Buffer Zone;
2. Document oral history of forests, grazing commons, wildlife and lu spirit inhabited tree species of the Pharak buffer zone of the Sagarmatha National Park (research in the Khumbu has already been done (Stevens, 1993, 2008));
3. Examine if there are any traditional conservation governance and management practices, including sacred sites, religious forests, etc, which play important roles in biodiversity and cultural diversity conservation today in Pharak (for Khumbu, Stevens 1993, 1997, 2008); and
4. Assess if Nepal has met international conservation governance and management standards required by international conventions and treaties.

1.4 Research Methodology

1.4.1 Research Sites: Kathmandu; Pharak and Khumbu

I undertook this research in my home region of Pharak (BZ) focusing on five major villages: Lukla, Nangbuk, Yulngying, Rimijung and Monzo. These five villages, which vary from 30 to 150 households are chosen because they are representatives of regional variation or diversity with high demand on forest products. They include villages with the largest forest areas (Ghyuphete with 8,364.8 hectares), the ones closest and farthest from
national park entrance Monzo, with 5153.5 hectares and Lukla airport, with 500 hectares respectively, areas with clear-cut primary forest (Yulngying with 4850.1 hectares) and areas with remnant old-growth forests (Nangbuk with 225 hectares), Table 1.

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name of the Settlements</th>
<th>Total HHs</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>1</td>
<td>Lukla</td>
<td>151</td>
<td>358</td>
</tr>
<tr>
<td>2</td>
<td>Nangbuk (Mushey)</td>
<td>48</td>
<td>115</td>
</tr>
<tr>
<td>5</td>
<td>Yulngying (Ghat)</td>
<td>34</td>
<td>87</td>
</tr>
<tr>
<td>8</td>
<td>Ghyuphete (Sano Gumela)</td>
<td>31</td>
<td>73</td>
</tr>
<tr>
<td>9</td>
<td>Monzo</td>
<td>61</td>
<td>171</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>325</td>
<td>804</td>
</tr>
</tbody>
</table>

Source: TRPAP 2006

<table>
<thead>
<tr>
<th>VDCs</th>
<th>Demography status 2002</th>
<th>Demographic status 2006</th>
<th>Population growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HHs</td>
<td>Population</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Chaurikharka (Pharak)</td>
<td>444</td>
<td>1111</td>
<td>1137</td>
</tr>
<tr>
<td>Khumjung (Khumbu)</td>
<td>429</td>
<td>1063</td>
<td>1059</td>
</tr>
<tr>
<td>Namche (Khumbu)</td>
<td>285</td>
<td>746</td>
<td>754</td>
</tr>
<tr>
<td>Total</td>
<td>1158</td>
<td>2920</td>
<td>2970</td>
</tr>
</tbody>
</table>

**HHs= Households**  
**Source: District Profile Solukhumbu, 2002, TRPAP 2006**

I also conducted some of interviews and focus group discussions in the Khumbu villages of Khumjung, Nauje, Thame and Thamo. Khumjung village lies in the Khumjung Village Development Committee (VDC) (also Khumbila Buffer Zone User Committee) and Nauje, Thame and Thamo villages lie in Namche VDC (Namche BZUC). The size of these villages varies from 18 to 150 households (Tables 3 and 4).
Khumjung and Namche VDCs respectively have total populations of 2,289 and 1,375 (MFSC/DNPWC, 2007). These villages are some of the major villages located in the SNP, and the views of their residents were important in the research.

**Table 1.3: Demography of Khumjung village of Khumjung VDC**

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name of the Settlements</th>
<th>Total HHs</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>1</td>
<td>Khumjung-1-3</td>
<td>150</td>
<td>350</td>
</tr>
</tbody>
</table>

*Source: TRPAP 2006*

**Table 1.4: Demography of selected villages of Namche VDC**

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name of the Settlements</th>
<th>Total HHs</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>1</td>
<td>Namche</td>
<td>138</td>
<td>368</td>
</tr>
<tr>
<td>5</td>
<td>Thamo</td>
<td>35</td>
<td>82</td>
</tr>
<tr>
<td>6</td>
<td>Thameteng</td>
<td>18</td>
<td>36</td>
</tr>
<tr>
<td>9</td>
<td>Thame</td>
<td>33</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>224</td>
<td>563</td>
</tr>
</tbody>
</table>

*Source: TRPAP 2006*

**1.4.2 Research Ethics**

The research followed the Institutional Review Board (IRB) requirements of the University of Massachusetts for research with people. Research permission was obtained from the Department of National Parks and Wildlife Conservation, Kathmandu to conduct the field research in the park and buffer zone. Permission of individuals was obtained for interviews and focus groups through informed consent forms written in Nepali language. Due to the current lack of regional and village governments, it was not possible to obtain community authorization.²

There are moral issues associated with any kind of research. Local people may not wish to have particular research conducted or may not want to cooperate or participate, including because they are “tired” of research or because they do not see any direct
benefits out of it. Therefore, besides protecting individuals’ privacy and rights as required by IRB rules, it is also important to obtain free, prior and informed consent from local people, including local interviewees, key interviewees and communities and their governments.

1.4.3 Ethnographic Interview

I used qualitative research methods to gather information for this research.

Qualitative research methods are the main ones used in political ecology, although political ecology also uses quantitative analysis of data sets and interpretation of satellite images, plans and Figures. They can reveal and interpret the complexities, context and significance of people’s understandings of their lives and political relationships and actions (McGuirk and O’Neill 2005: 191).

To investigate conservation governance and management it is especially important to gain good information from local indigenous people. The methodology accordingly emphasized observation, semi-structured individual interviews, oral history interviews and focus group interviews. These were confidential individual and focus group interviews with informed consent as required by the UMASS Institutional Review Board and professional ethics for research with indigenous peoples. I also conducted individual interviews with government officials, indigenous peoples’ political leaders and NGO staff. In addition, I had the opportunity to participate in many buffer zone community forest user group (BZCFUG) meetings, buffer zone user group (BZUG) meetings and other public meetings that took place in the summer of 2011. These were important for my research project, because they provided me with a broad and in-depth understanding
of the local context, situation, problems, issues and politics. I conducted fieldwork in Nepal from May to August 2011, with fieldwork in Sagarmatha National Park (SNP) and SNP buffer zone (BZ) in June and July 2011.

I designed and conducted semi-structured interviews to collect specific types of information. I conducted 29 semi-structured individual interviews in villages and four in Kathmandu, and also held 9 focus group interviews with a total of more than 59 participants. I conducted all the interviews by myself in the Sherpa or Nepali languages and did not hire any assistants. Though such individual research took more time, I felt this was important because I could get more in-depth knowledge of the local context and issues. On the other hand, it also had its drawbacks, particularly shortage of time as it took a longer time to conduct interviews. In recruiting participants I tried to make sure I interviewed a full range of people in terms of gender, ethnicity, and occupation. Some of the people I interviewed were rights-holders\(^3\) (resident indigenous peoples). Others were stakeholders such as government officials (for example, in the Department of National Parks and Wildlife Conservation (DNPWC), Ministry of Forests and Soil Conservation (MFSC), and national park Wardens), INGO staff and local non-indigenous residents. It was important to interview women, minorities, and poor people as their experience with park officials and the Army park protection unit is often different from others'. I also chose who to interview on the basis of my personal contacts and “snowball sampling” (where interviewees and local experts recommend particular other people to interview) (Bradshaw and Stratford, 2010).

The interviews were guided by an “interview schedule,” which was a set of key questions that I hoped to ask during the interview. The lists of thematic questions used
In interview schedules are provided in annexes for individual interviews (Appendix A1), I/NGO staff, and government officials (Appendix A2), and for focus groups (Appendix A3). Informal semi-structured interviews and oral history interviews with key interviewees and local experts, and with individuals selected for their expertise or diverse life-situations, also allowed for unexpected discussions due to the interests and knowledge of the interviewees. As per the nature of the research, I also modified the questions during the interviews depending on the interactions with interviewees (Dunn, 2005). This also gave the flexibility to raise further questions immediately. The semi-structured interviews were undertaken with individuals, so that the respondent could feel comfortable and free to express her or his views openly.

I used focus group discussions to generate, verify and add in-depth understanding of the data and information gathered from secondary sources and semi-structured interviews. The focus group method involves a small group of people discussing a topic or issues defined by a researcher. This method was applied for the research for eliciting data from the buffer zone user groups, community forest user groups, and NGO representatives.

This type of focus group interaction has been described as having a ‘synergistic’ effect of focus groups and some propose that it results in far more information being generated than in other research methods. With the shift to more nuanced explorations of people-place relationships in geography, the focus group method has been increasingly recognized as a valuable research tool. Others criticize it, however, as often providing unreliable or incomplete information over issues because of intersubjectivity concerns (Cameron, 2010: 153).

Focus group can be a highly efficient data-gathering tool, and some researchers believe they are especially useful in a “more critical, politicized, and more theoretically driven research context” because they enable participants to voice different perspectives.
and interact (Cameron, 2010). However, these contexts may also lead individuals to speak less than candidly. I conducted 9 focus groups interviews, 3 with BZCFUGs, 4 with BZUGs in villages and 1 with Legislative Members in Kathmandu. The size of each focus group varied from 3 to 12 and involved 59 people in total. The sessions lasted for one to two hours. In a focus group situation the researcher has to be a neutral but inclusive facilitator to initiate discussion. The nature of participants often varies considerably. Some of the participants were quiet and shy while some were talkative and dominating. Therefore, I cautiously led the discussion and played an active role to involve everyone in the discussion process. The discussion outcome was noted down and also recorded in an audio tape. Focus group discussions were useful not only to me, but to the participants, who benefited from the discussions and gained knowledge of local conservation issues.

Finally, I had the opportunity to take part in twelve different public meetings. Those meetings included eight community forest user group (CFUG) meetings, one in the buffer zone user group, one in the buffer zone user committee (BZUC) in Pharak in July 2011, one meeting at the park headquarters to discuss the Internal Working Procedure 2007 of the SNPBZ and a meeting at the park entrance visitor center at the time of the kani (Buddhist entrance gate) consecration ceremony. All those meetings provided very detailed insights about the forest, wildlife, local politics, tourism and conservation issues and challenges.
1.4.4 The Structure of the Dissertation

Chapter two has three sections. The first section presents a literature review of the political ecology of conservation. The second section presents brief information on the physical, cultural and demographic geographies, the history of the unification of Nepal and colonization of indigenous nations, and the protected area system of Nepal. The third section introduces the research sites including the Khumbu and Pharak regions, the Khumbu *beyul*, internal colonization of the *beyul*, and related issues of the research site.

Chapter three presents an assessment of the customary forest governance and management of the Pharak region. Although this chapter refers to the Khumbu Indigenous Peoples’ and Community Conserved Area (ICCA) forests, it particularly discusses the Pharak ICCA forests. The chapter investigates the interest of Pharak Sherpa custodians for conservation, management, and governance of the ICCA forests. It further discusses and reveals Pharak Sherpas’ ways of thinking, belief systems and values towards nature, particularly to the mountains, forests, trees, wildlife and associated lands and territories. It presents a case study documenting the ICCA forests governed by the Sherpa community even before the 1960s. It also presents the case study of emerging sacred ICCA forests under the state-formulated Buffer Zone Community Forest User Group Regulations, although these have not been declared by the buffer zone or recognized by the Nepal government as such.

Chapter four introduces the conceptual and historical background of nationalization of community forests and intervention by the state in order to impose centralized forest governance system. It also looks at the development of community forest user group in Nepal, and the author’s findings from field research on forest
governance in the Pharak region. The chapter examines the political ecology of the
Pharak forests that and its changes due to government intervention, local resistance,
tourism development, INGO assistance, political interference and local participation over
the last five decades. It provides detailed accounts of forest governance under the
Department of Forest’s District Forest Office (DFO), and a contrasting scenario of forest
decentralization through community forest user groups. The chapter also gives an
illustration of different changes and impacts that were experienced as an outcome of the
policy interventions. Finally, it presents the profile of seven buffer zone CFUGs.

Chapter five presents thematic discussions of the field research findings on
community forest management and governance of the Pharak region today. Particularly,
it describes the changing context of timber felling in the Pharak region and its trade in the
Khumbu region. Secondly, it discusses the various rules that the Pharak buffer zone
community forest user groups have developed to govern and manage the community
forests and private forests. In order to have sustainable forest use, the Pharak CFUGs
have made rules regarding community forests, religious forests and private forests.
Thirdly, the Pharak CFUGs have also regulated a firewood collection system to protect
the community forest. Finally, the chapter discusses the pressure posed by immigrants on
the forests in the Pharak and CFUGs’ response to address the problem.

Chapter six discusses two different types of conflicts. The first conflict is conflict
between park authority and local community due to cultural differences, and the second
one is management and governance related, the conflict that prevails between the
Sagarmatha National Park/Buffer Zone and Buffer Zone Community Forest User Groups.
Secondly, the chapter discusses tree-felling permit systems and technical assistance to
CFUGs, both under DFO and SNPBZ governance. The first conflict is between the Sherpa community’s belief in Buddhism and retention of the Khumbu Beyul as the non-violent area versus outsiders’ beliefs. This Sherpa belief motivates the Sherpa community of the Pharak and Khumbu regions to impose a ban on slaughtering any livestock in the Khumbu Beyul. The second conflict is caused by the park management authority taking back all tree-cutting stamps from the CFUGs and using only one seal by the park authority, thereby indicating that the park is re-centralizing the forest management and governance authority in the decentralized buffer zone management program.

Chapter seven presents a discussion of the internal management and governance issues of six of the Pharak region’s Buffer Zone Community Forest User Groups (BZCFUGs). It also analyzes the strengths and weaknesses of the Himalaya, Kongde, Dudhkunda, Pemacholing, Mushey and Lukla BZCFUGs’ management and governance in detail. The chapter also discusses the impacts of Maoist insurgency on the Lukla community forest governance, and associated issues of voluntarism and the social relations of the CFUG executive members with their users. The chapter also discusses three issues: conflicts between BZCFUG and BZUG; the issue of pig farming by immigrant communities in Kongde and Lukla CFUGs and their impacts on forest conservation; and the impacts of resort construction by Thamserku and International Trekking Agencies in the Pharak region.

Chapter eight discusses wildlife ecology and its governance in the Buffer Zone Community Forest User Groups (BZCFUGs) of the Sagarmatha National Park. It describes major mammal species and some bird species of the BZCFUGs, their population dynamics and interdependence on each other for survival. It also discusses the
changes and impacts on wildlife ecology that has been brought by the intervention of
different conservation governances at different time periods in the Pharak region. The
chapter also analyzes the role of Sherpa community in wildlife conservation through their
religious and cultural values and belief system. It then discusses the depredation of crops
and livestock by wildlife, the compensation scheme that the Nepal government has
proposed for such losses and possible reasons for the observed increase of wildlife
species in the Pharak region over the recent years.

Chapter nine introduces the buffer zone concept, its international origins and its
value. It then reviews the concept of buffer zone in the protected area management and
governance system of Nepal, and Sagarmatha National Park Buffer Zone (SNPBZ) in
particular. It analyzes the history, local conservation politics and contestation surrounding
the forms of protected area management and governance in the SNPBZ. Finally, it
discusses the features of buffer zone management plans 2004 and 2007.

Chapter ten discusses buffer zone governance, and the planning and institutional
framework of the SNPBZ. It analyzes the governance of buffer zone of SNP from Pharak
people’s perspective, and assesses its impacts. Secondly, it includes an overview of the
Buffer Zone Management Plan 2004 and Sagarmatha National Park and Tourism
Management Plan 2007. Thirdly, it discusses energy demand, inter-village competition to
secure budget for micro-hydro project development, and associated politics, conflicts and
contestation over buffer zone budgets in the Pharak region. Finally, this chapter provides
an overview of the roles of international NGOs in conservation and development of the
SNPBZ in Khumbu and Pharak, including CESVI’s Community-based Land and Forest
Management Project.
Chapter eleven illustrates the Khumbu Sharwa (Sherpa) people’s perspective, particularly the perspectives of interviewees from the villages of Khumjung, Thame, Thamo and Nauje, about Sagarmatha National Park management and governance, SNP’s impacts, the relationships between the park authority and local Sharwa community, and Sharwa’s representation in the park administration. Secondly, it discusses the ICCA forests and lakes present in the SNP and their roles in bio-cultural diversity conservation. Third, the chapter discusses SNP forest governance and management, and the plantation program of the Himalayan Trust. Fourth, it discusses the firewood collection rules and their impacts on forest and wildlife biodiversity conservation. Finally, it discusses the violation of the SNP’s rules and regulations by park and army staff.

Chapter twelve presents a discussion of Khumbu Sharwa and non-Sharwa people’s perspectives on buffer zone management and governance. It includes the Buffer Zone Management Committee’s plan to re-introduce nawa-institution in the Thamicho area; a detailed account of buffer zone budget; appraisal of social inclusion issues in buffer zone governance; and institutionalization of buffer zone management program at the community level. Secondly, it analyzes the different types of tourism revenues that are generated by the Nepal government from the Khumbu region. Finally, it discusses the tourism issues of SNPBZ, such as over-crowding and immigration problems and concern over loss of Sherpa traditional architecture.

Chapter thirteen discusses the conservation governance and management issues and concerns of each of the governance systems. It makes the recommendations concerning the conservation governance of the Sagarmatha National Park, Buffer Zone and BZCFUGs of the Pharak region. It also analyzes international treaties, which are
related to indigenous peoples’ rights, biodiversity conservation and Nepal’s response to these instruments. It first analyzes ILO Convention 169 and indigenous people’s rights in relation to protected area governance. Then the chapter discusses different articles of ILO 169 in the case of SNPZ and Nepal’s protected area governance system and whether they meet the international standard of conservation and indigenous peoples’ rights. Finally, the chapter provides my conclusions and recommendations for Nepal’s protected area governance and SNPZ’s conservation policies and plans.
PART I

COMMUNITY FORESTS AND CONSERVATION
CHAPTER 2

POLITICAL ECOLOGIES OF CONSERVATION IN THE MOUNT EVEREST REGION OF NEPAL

Chapter two has three sections. The first section presents a literature review of the political ecology of conservation. The second section presents brief information on the physical, cultural and demographic geographies, the history of the unification of Nepal and the colonization of indigenous nations, and the protected area system of Nepal. The third section introduces the research sites, including the Khumbu and Pharak regions, the Khumbu beyul, internal colonization of the beyul, and related issues of the research site.

2.1 Political Ecology

The dissertation deals with topics in political ecology of conservation subfield in human geography. The dissertation touches upon many issues in political ecology. “Political ecology is the study of the politics, social relations, and political economy of environmental change and conservation, with special attention to the dynamics of land/water tenure, use, and management” (Stevens, n.d.). The concept of political ecology as a subfield in human geography has emerged in the 1970s – 1980s (Bryant & Bailey, 1997). According to geographers Pier Blaikie and Harold Brookfield (1987), “the phrase “political ecology” combines the concerns of ecology and a broadly defined political economy”. Bryant and Bailey in 1997 wrote that political ecology is concerned with “politcized environment” and broadly defined “political economy.”

Political ecological concerns thus extend to the environmental ramifications of a wider range of state policies and, practices including relationships between states, Indigenous peoples and local communities, the activities of national and transnational organizations, as well as corporations and social movements and
other manifestation of resistance/negotiation by “grassroots” actors and international advocates/allies (Stevens, n.d.).

The literature review on political ecology for this dissertation includes concepts like devolution (Ribot, 2004), decentralization, state territoriality (Vandergeest & Peluso, 1995; Scott, 1998), resistance (Scott, 1985), and community-based natural resource management (Ribot, et al. 2006). This dissertation considers the diffusion and globalization of American conservation model, which has led its way to replication in thousands of national parks, wildlife reserves and other types of protected areas today in every continent (West and Brechin 1991; Stevens 1997; Colchester 1997; Brockington, et al. 2006; Stevens’ forthcoming). Consequently, this model has possibly produced at least ten million “conservation refugees”, of which the majorities are indigenous peoples (Brockington, et al. 2008; Dowie, 2009). In employing exclusionary policies in the establishment of protected areas, the displacement of local people deprives them of their homeland and resources (Chatty, et al. 2002; Stevens 1997; Stevens’ forthcoming). The relationship between the homeland and these displaced people could be irreplaceable in many cases, which amounts to the violation of their rights to live as a people (Anaya, 2009). This kind of exclusionary conservation also known as “fortress conservation” (Brockington 2002) spread to the global south, colonial countries in Africa, Asia and South America (Stevens, 1997; Brockington, et al. 2008, Colchester, 2008). Worldwide, the state driven colonial approach of setting up protected areas displaced indigenous peoples and local communities, who owned, occupied, used, cared and governed the land, territories, sacred sites and natural resources for generations (Alcorn, 2005; Stevens, 1997, 2010c; Anaya, 2009; Stevens’ forthcoming). Traditional owners can be physically displaced from their homelands and territories or economically displaced through
imposition of restriction on the access to the resources and also politically displaced from
decision-making power (Cernea, 2006; Campese, et al. 2009; Stevens forthcoming).

Indigenous peoples are related to and dependent on such sites for economic, social,
These areas were fundamental to their lifestyles and cultures. For instance, most of such
lands, forests, groves, lakes and natural formation are sacred sites to indigenous peoples
(Dudley, et al. 2009; Sherpa, 2008). Indigenous peoples manage such sites internalizing
their religious faiths, cultural beliefs and customary institutions and laws, and making
decisions on how to manage those resources (Alcorn, 2005; Stevens, 1997; Borrini-
Feyerabend, 2006). However, national governments have established protected areas
following America’s Yellowstone model in all continents without the free, prior and
informed consent of the local custodians, whose insights and expertise could have led to a
more efficient planning (Rai, 2012). Moreover, the traditional ecological knowledge
(TEK) accumulated over thousands of years by these indigenous peoples is wasted when
such exclusionary planning is undertaken (Dudley, et al. 2009).

This old paradigm approach of exclusionary conservation is now widely accused of
violating human rights and indigenous peoples’ rights, and there are thus serious
concerns over the methods of the state-managed scientific conservation model that has
been prevailing throughout the world. BINGOs4, which assist in this model, are also
being held responsible and are coming under scrutiny as well (Peluso, 1993;
Nietschmann 1997; Chapin 2004; Alcorn and Royo 2007; Brockington, et al. 2008;
Dowie 2009; Stevens, 1997, 2010, forthcoming). In recent decades the rights of
indigenous peoples have been identified by the United Nations in the international treaty
ILO Convention 169 on Indigenous and Tribal Peoples (1989) and in the 2007 U.N. Declaration on the Rights of Indigenous Peoples (UNDRIP), which was adopted by the U.N. General Assembly on September 13, 2007 (Anaya, 2009). The adoption of UNDRIP brought an end to

“25 years’ of contentious negotiations over the rights of indigenous peoples to protect their lands, territories and resources, and to maintain their unique cultures and traditions” (Colchester, 2008).

Many of these rights are important in protected area situations. At least 14 articles of ILO Convention 169 and most articles of UNDRIP are related to conservation governance and indigenous peoples’ rights (Stevens, 2009, 2010b, forthcoming).

According to ILO 169 and UNDRIP, indigenous peoples have the rights to own, occupy, use, manage and govern their lands, territories and natural resources individually and collectively (Colchester, 2008, Anaya, 2009; Stevens, 2009, 2010, forthcoming). They have the rights of self-determination, self-governance and autonomy over these resources. According to UNDRIP, any conservation and development activities that occur in indigenous peoples’ land and territories should not take place without the free, prior and informed consent of the indigenous custodians (Anaya, 2009). These rights, however, are often violated by states and INGOs and not recognized in old paradigm protected areas (Chapin, 2004; Dowie, 2009). Indigenous peoples worldwide have suffered irremediably from lack of freedom and democratic governance that would recognize the rights of indigenous peoples (Dowie, 2009).
2.2 Political Ecologies of Conservation – Key Concepts

Territorial strategies of resource control have played important roles in the claiming and allocation of resources by indigenous peoples, communities, and natural resource management agencies of government even prior to colonialism (Peluso, 2003). Territorial sovereignty defines people’s political identities as citizens and on that basis the states claim authority over people and the resources within their boundaries (Vandergeest & Peluso, 1995). Modern states have increasingly turned to territorial strategies to control what people can do inside national boundaries (Vandergeest & Peluso, 1995). States often attempt to control land, resource and people within their sovereign international political boundaries. Using land and forest laws, these colonial states and their bureaucrats establish territorial mechanisms through which states and state agencies can control both the resources and activities of their subjects seeking access to those resources (Peluso, 2003; Vandergeest & Peluso, 1995). The control can be made by using force, political power, imposing exclusionary or inclusionary laws, taxes and alienating native peoples from access to resources (Gurung, 2009). The decisions are mostly based on one way communication that are top-down, non-participatory and centrally designed ones. This is the process of state territorialization, in which, states draw Figures, divide and delineate landscape, resources and peoples, formulate and enforce new sets of laws and policies. Establishing control over natural resources and the people who use them is called internal territorialization (Vandergeest & Peluso, 1995; Peluso, 2003). The concept of “territorialization” and “colonization” are similar as both use the same approach to get control over lands, territories and resources owned, occupied, managed and governed by indigenous peoples and local communities.
In conceptualizing territoriality, the definition offered by Sack is useful for the purpose of this political ecology research. According to Sack as cited in Vandergeest & Peluso, 1995, territoriality is the “Attempt by an individual or group to affect, influence, or control people, phenomena, and relationships by delimiting and asserting control over a geographic area.”

Territorialization is about excluding or including people within particular geographic boundaries, and about controlling what people do and their access to natural resources within those boundaries. Territoriality also involves the communication of both the territorial boundaries and the restrictions on activities within the territory. States often have to rely on open coercion against rural residents to implement territorial control. Even under such conditions, people often refuse to acknowledge the territories claimed by states for parks, protected production forests, and even state regulations on private property (Vandergeest & Peluso, 1995). State territorialization policies have, in fact, always faced local and regional resistances to their territorial sovereignty. In these, local and regional actors have emphasized more localized, identity-based territorial strategies of resource ownership and control as a means of mounting counterclaims or reclaims to contested or appropriated resources (Vandergeest & Peluso, 1995).

Indigenous peoples and local communities claim that they have been interacting with lands and resources according to their religious and cultural values and belief systems for centuries and millennia (Mafi, 2008). Indigenous peoples’ self-identifying criteria recognized by the United Nations indicate that indigenous peoples are the one, who interacted with the lands, territories and resources, maintained distinct cultural identity, and produced unique landscapes over a period of time (Stevens forthcoming). As a result, they might have developed their own indigenous knowledge and practices to manage and govern land, territories and resources (Stevens, 1997; Mafi, 2008). Such management and governance institutions and system are related to indigenous peoples’ lives, livelihoods and identity. Indigenous peoples and local communities have historical and sentimental attachment with their land and resources (Mafi, 2008). They might have territorialized
certain geographical areas, regions, zones and space and resources, and retain individual or collective rights over such lands, territories and resources (Vanderveest & Peluso, 1995; Peluso, 2003). Both state and local practices help produce new sorts of territoriality, occupying and controlling land and resources (Peluso, 2003). Therefore, indigenous peoples have both individual and collective rights to own, govern and manage their land, territories and natural resources (Anaya, 2009; Stevens, 2010b).

Rulers territorialized state power to achieve a variety of goals. Such goals can be achieved through collection of tax, resource exploitation, revenue generation from fees and levies. States may deploy administrative staffs or maintain their presence through appointed agencies at the local level. Local communities and indigenous peoples however resist such initiation and conflict may break as an outcome of such coercion. Resistance can be in forms of movement, demonstration, non-cooperation and foot-dragging strategies (Scott, 1985; Brockington & Schmidt-Soltau, 2004). Consequently, both the engaged parties may suffer.

States in the past had created national parks and protected areas often on lands occupied or used by indigenous peoples and local communities individually or collectively. States forcibly took over forest commons owned, occupied and protected by indigenous peoples without free, prior and informed consent (Brockington & Schmidt-Soltau, 2004). Statement by Indigenous Peoples in Indigenous Peoples Ad hoc Working Group for the World Parks Congress 2003 stated:

The declaration of protected areas on indigenous peoples territories without our consent and engagement has resulted in our dispossession and resettlement, the violation of our rights, the displacement of our peoples, the loss of sacred sites and the slow but continuous loss of our cultures, as well as impoverishment. It is thus difficult to talk about benefits for Indigenous Peoples when protected areas are being declared on our territories unilaterally. First we were dispossessed in the
name of kings and emperors, later in the name of State development, and now in the name of conservation (cited in Stevens, forthcoming).

This is because states often underestimate the roles of indigenous peoples and local communities, and consider them as destroyers of forests, wildlife and natural resources (Dowie, 2009). States often disregard customary practices and conservation contribution of indigenous peoples in the influence of Western scientific ideals and colonization (Dressler, et al. 2010). States instead take paternalistic approach and claim themselves as expert forest and resource managers (Stevens, forthcoming).

In the process of management and governance of such resources, states created national parks, wildlife and forest departments at the national level, and their units at regional and local levels to territorialize land and natural resources including forests (Peluso, 2003). States might displace local communities and indigenous peoples from their homelands, territories and deprive them from access to resources (Dressler, et al. 2010). However, this style of state territorializing conservation model has encountered criticism since the fourth World Parks Congress 2003 (Brosius, 2004; Jana, 2010, Stevens, 2010b, forthcoming; Paudel, et al. 2011). Since then, new approaches to conservation are emerging, which seeks true participation of indigenous peoples and local communities and recognition of their cultural and religious rights on lands, territories and natural resources (Brosius, 2004; Dressler, et al. 2010; Stevens forthcoming). Local people’s access rights to natural resources and customary conservation practices need to be respected. International conventions and declaration like Convention on Biological Diversity (CBD), International Labor Organization (ILO) Convention 169 and UNDRIP play important role in recognition of indigenous peoples’ rights in conservation (Stevens, 2010b; Paudel, et al. 2011).
The concept of right-based approach (Johnson, & Forsyth, 2002; Blaikie, 2006; Campese, et al. 2009) in conservation governance and management has been proactively promoted, as the old paradigm conservation violated human rights and indigenous peoples’ rights in the nineteenth and twentieth century (Brosius, 2004; Campese, et al. 2009, Stevens, 2010b). As territorializing conservation practices faced heavy criticism, new approaches to conservation evolved in the 1980s (Brosius, et al. 1998, 2005; Leach, et al. 1999; Blaikie, 2006; Dressler, et al. 2010). New approaches like integrated conservation and development program (ICDP), community-based conservation (CBC), community-based natural resource management (CBNRM) came to challenge the previous practices in the 1980s (Eghenter, 2002; Blaikie, 2006; Dressler, et al. 2010). ICDP intended to address socio-economic needs of resource dependent communities residing in and around protected areas through economic activities and small scale infrastructure development projects (Wells, et al. 1992; Sherpa, 2000; Eghenter, 2002). However, most ICDPs received mounted amount of criticism as protectionist ideology contradicted rural ways of life across the globe (Peters, 1998; Hughes & Flintan, 2001; Dressler, et al. 2010). ICDP is a form of CBNRM program, which did not consider indigenous peoples and local communities as right-holders; however it helped move towards that direction (Jana, 2009).

The concept of CBNRM has been promoted by the first world NGOs, foreign donors and states in the third world countries through colonialism and neocolonialism approaches (Bryant & Bailey, 1997), which usually suppress, alienate and criminalize local communities and indigenous peoples for harvesting forests and natural resources.
(Chapin, 2004; Brockington, et al. 2008; Dowie, 2009; Dressler, et al. 2010). Dressler and colleagues write that,

Almost three decades later, the ideals of CBNRM finds itself entangled in complex administrative and policy structures, perversely hybridized with wider neoliberal restructuring and challenges by resurgent protectionist conservation. Today, CBNRM is experiencing crisis of identity and purpose (Dressler, et al. 2010).

This is because the idea of CBNRM is based on colonial approach of western scientific conservation ideal, while at the same, the social movement of global indigenous peoples has made visible progress. However, this does not mean that Western scientific conservation is not important. The mutual respect and recognition between scientific concepts and indigenous knowledge need to work in integration, coordination and cooperation to produce synergy effect in biodiversity conservation.

Third world states, international funding institutions (IFIs) and international NGOs claim that CBNRM is a devolution and decentralization of forest and natural resource management authority (Blaikie, 2006; Ribot, et al. 2006). However, in reality, big international NGOs (BINGO) play important role to enforce CBNRM as colonial or neocolonial conservation approach in partnership with respective states. BINGOs provide financial and technical assistance to third world states to either displace or exclude indigenous peoples and local communities from their lands, territories and resources in the name of conservation (Chapin, 2004; Dowie, 2009). Moreover, states and international funding institutions who play important roles in conservation and development field consider indigenous peoples and local communities as “stakeholders” and not “right-holders” (Cernea, 2006; Alcorn & Royo, 2007; Campese, et al. 2009; Jana, 2009), whilst, local communities and indigenous peoples consider themselves as right-
holders (Alcorn & Royo, 2007, Jana, 2009). This is now supported and recognized by international hard laws of ILO 169 and Convention on Biological Diversity and soft law of UNDRIP. The concepts of CBNRM from territorializing states’ and NGOs’ perspectives do not recognize that local communities and indigenous peoples have sovereign rights to manage, use and govern forest and natural resources (Cernea, 2006; Alcorn & Royo, 2007; Campese, 2009; Stevens, 2010b). This is approach of colonialism. Therefore, ownership and use rights of forest and natural resources are contested in conservation discourse (Brockington, et al. 2008). This notion, however is against the standard of ILO Convention 169, Convention on Biological Diversity and UNDRIP (Anaya, 2009; Stevens, 2010b).

The concepts of buffer zone management program (BZMP) and buffer zone community forest user group (BZCFCUG) program of Nepal are forms of decentralized CBNRM from states’, international funding institutions’ and international NGOs’ perspectives. In this concept, indigenous peoples and local communities are considered merely as collaborating partners, but not as decision-makers. These so called two innovative concepts of CBNRM program in Nepal’s conservation domain evolved after the failure of state imposed old paradigm conservation mechanism in the early 1990s (Jana, 2007, 2009; Pauldel, et al. 2007). BZMP and BZCFCUG programs were initiated after the state managed and governed protected areas failed to address the socio-economic and environmental needs of protected area resource dependent communities (Paudel, et al. 2007). Both the BZMP and BZCFCUG are operated under Buffer Zone Management Regulation of 1996 (Jana, 2009, 2010). Although 30-50 percent of protected area revenues are shared for integrated conservation and development programs (ICDP),
particularly focusing on conservation, community development, conservation education
and skill enhancement programs, their sharing of the benefits with the poor, marginalized
and indigenous peoples is still contested (Jana, 2009, Paudel, et al. 2011). The 50 percent
plow back of protected area (PA) revenues back to the local communities is insignificant
if visitor’s number to PA is low.

Buffer Zone management institution needs to be inclusive and equitable in
representation and decision-making process. Often, Buffer Zone Management
Committees (BZMCs) and their branch institutions are mostly represented by elites and
powerful elected leaders (Jana, 2007; Paudel, et. al. 2007). Moreover, BZMCs largely
function under the control of the chief conservation officers (wardens), who also act as

Buffer zone rules are centrally formulated, boundaries are set by protected area
authority, and park wardens are given the sole authority to disburse the funds,
monitor progresses and approve costs. In addition, park wardens can dismiss the
buffer zone user committees if operational plans are not properly followed. Yet,
the elected community leaders are supposed to participate within these given space (Paudel, et al. 2010).

Indigenous and local communities’ participation in buffer zone institutions including
the buffer zone community forest user groups is more “symbolic and tokenism” than real.
In this regard, buffer zone management program (BZMP) and buffer zone community
forest user groups (BZCFUG) program in Nepal is merely a form of CBNRM (Heinen &
Mehta, 1999). The concept of CBNRM is popular within the circles of states’,
international funding institutions (Blaikie, 2006; Eghenter, 2002) and NGOs’ alliances.
However, despite having numerous shortcomings in the co-management institutional
arrangements of BZMP and BZCFUG, they also have many positive aspects, which have
the potential to minimize conflicts between protected area authorities and local right-
holders (Paudel, et al. 2007). The different types of CBNRM and governance models including buffer zone management and buffer zone community forest user group programs that Nepal has trialed, have credible experiences to share with rest of the world (Heinen & Mehta, 1999), who share similar situations.

One of the biggest constraints faced by buffer zone is the ‘tenuous and incomplete nature of rights and operational space that are granted to participating communities by the state’ (Paudel, et al. 2010).

2.3 Nepal: A Geographical Background

2.3.1 Physical Geography

Nepal is a Himalayan country sandwiched between two giant nations of China and India, in South Asia. The country lies in the central Himalayan region. The Tibet Autonomous Region of People’s Republic of China lies in the north and India lies in the south, east and west of Nepal. Nepal is situated between latitudes of 26°22' to 30°27' north and between longitudes of 80°4' to 88°12' east. The east-west length of the country is about 800 km, roughly parallel to the Himalayan axis, and the average north-south width is 140 km. Nepal is divided into three physiographic regions. First, the southern fertile plain region, extended east to west is called Terai (Tarai) Region. The altitude of Terai ranges from 60 meters to 700 meters at the foothills of Terai called Siwaliks or Churia. Second, the region between Terai plains to foot of the mountain region is called the Hill Region (Pahar in Nepali). The Hill region is situated between 700 meter and 4000 meter’s altitude. Third, the range between 4000 meters to the 8848 meters (to the summit of Mt. Everest) is known as the Mountain Region (Stevens, 1993).

The elevation of the country ranges from 60m, to the highest point on earth – the summit of Mt. Everest, or Sagarmatha (in Nepali), or Chomolungma (in Sherpa) – at
8848m. The climate of Nepal varies accordingly, from sub-tropical monsoon of the terai (low land in the south) to arctic tundra of the high Himalayas in the north. Within a total area of 147,181 square kilometer, Nepal has biological richness of both Indo-Malayan and Palaeartic realms, including flora and fauna. With only 0.1 percent of the world’s total area, Nepal possesses: over 2.76% of the world’s flowering plants, about 8.9% of bird species, and about 4% of mammal species (Tiwari, 1998, Forestry Nepal, 2010).

Nepal represents a total of 118 ecosystems with 75 vegetation types and 35 forest types where 370 species of flowering plants are recorded as endemic to the country and 700 species are known to possess medicinal properties. It is estimated that more than 6500 species of flowering plants, over 1882 fungus species, over 471 species of lichens, about 185 species of mammals, 874 bird species, 147 reptile and amphibian species, 187 species of fish, 651 species of butterfly and over 785 species of moth are found in Nepal (Forestry Nepal, 2010; DNPWC/PPP, 1998). However, this diversity is gradually being lost due to unsustainable utilization and inappropriate land use. For example, 26 species of mammal, 9 species of birds and 3 species of reptiles are either endangered, vulnerable or threatened (Tiwari, 1998).

2.3.2 Cultural and Demographic Geographies

Nepal is a land of rich cultural diversity. The national population census report 2011 reveals that 130 different caste/ethnicities are residing in Nepal. Nepal has more than 59 indigenous nationalities recognized by the government of Nepal (NEFIN, 2013). The indigenous nationalities have maintained distinct cultural identities through their ways of lives and livelihoods (Gurung, 2009). They have settled from the plains of Terai
to the foot of Mt. Everest in the north, Mechi in the east to Karnali in the far west. The total population of Nepal is 26,494,504, of which 48.5 percent is male and 51.5 percent is female. The population growth rate has decreased to 1.35 percent from its previous record of 2.25 percent in 2001 (CBS, 2012).

The total population of 59 indigenous nationalities in 2001 census was 37.2 percent of the national total of 23.2 million (Gurung, 2009). However, the census of 2011 listed the population of 47 nationalities only and left out 12 nationalities. The total population of indigenous nationalities presented in 2011 census is only 6,508,090, which is only 35 percent of the national total of 26.49 million. This shows that the population of indigenous nationalities in Nepal has decreased by 2.2 percent within last ten years. Because of this misleading population census, Nepal Federation of Indigenous Nationalities (NEFIN) has been contesting the census result from the very first day of its release. NEFIN has objected to the intention of the government for not showing the data of 12 nationalities and presenting small percentage of indigenous nationalities.

According to the census report of 2011, the total population of Sherpa nationality is 112,946, of which 58,522 is female and 54,424 is male. Of the national total, 95,309 and 17,637 Sherpas live in rural and urban areas, while 64, 237 and 46,508 Sherpas live in eastern and central development regions of Nepal respectively. Out of the national total, 55,772 Sherpas live in the high mountain and 51,991 in hill ecological regions respectively, and the remaining 5,183 live in the Terai ecological region of Nepal (CBS, 2012).
2.3.3 History of Unification of Nepal and Colonization of Indigenous Nations

The history of modern Nepal dates back to late eighteenth century. The size of Nepal then was not as big as what it is today. The present area of Nepal was divided into \textit{baise} (twenty-two) and \textit{chaubise} (twenty-four) mini-states (Stiller, 1975). King Prithvi Narayan Shah of Gorkha fought from his accession in 1743 until his death in 1775 and conquered all those small states and territorially unified Nepal into one big state in 1769 A.D. (Whelpton, 2005; Gurung, 2009). After the official declaration of modern Nepal in 1769, he extended his war towards eastern Nepal and overtook Majh Kirat and Chaudandi in 1773, Bijayapur in 1774 and much of modern Sikkim (Stiller, 1973; Whelpton, 2005). He declared “Nepal as a common garden of four \textit{varnas} and thirty-six castes”, but Nepal never became a common garden for indigenous nationalities, women, dalits (so called “untouchables”) (Regmi, 1972; Gurung, 2009). He declared Nepal as a single nation; \textit{khas} or so called high caste Brahmin language was designated as the official language; declared Hindu as the state religion, Nepal as a Hindu Kingdom, and criminalized beef eating, a common practice among indigenous nationalities (Regmi, 1972; Stiller, 1973; Gurung, 2009). Nepali government official visiting Khumbu for the first time in 1805 fined Khumbu Sherpas for killing cattle (Regmi, 1972; Stevens, 1993). Prithvi Narayan Shah colonized all indigenous nations and alienated them from their traditional and customary practices (Gurung, 2009).

Nepal had absolute Shah Dynasty governance from 1769 to 1846, and then the autocratic Rana regime took power from 1846 to 1951 (Regmi, 1972; Pradhan, 199; Whelpton, 2005).\(^5\)
The Muluki Ain (national law) of 1854, the legal code introduced by the first Rana Prime Minister, Jung Bahadur Rana, combined ancient Hindu sanctions and customary law and common laws modeled on the British and Indian codes with the rules of behavior that had evolved over the centuries among the Newars in the Kathmandu Valley (Regmi, 1972; Pradhan, 1991).

King Tribhuvan ruled Nepal from 1951 to 1955. Mahendra Bir Bikram Shah became the king of Nepal in 1955, who introduced unitary Panchayat system with promulgation of the constitution in 1962. King Mahendra promoted ethnic homogenization by re-enforcing the concept of one nation, one culture, one language, one religion, and one national identity. Indigenous and non-Hindu peoples were forced to share a common culture (Gurung, 2009). Nepal had autocratic Panchayat regime until 1990 (Barnhart, 2011).

The first people’s movement that began in 1989 declared Nepal as a democratic constitutional monarchy state in 1991. The first democratic constitution promulgated in 1991 liberalized various policies (Gurung, 2009; Barnhart, 2011). The constitution of the Kingdom of Nepal recognized Nepal as a plural society. As least in principle, the new constitution guaranteed civic rights, freedom of speech, freedom of organization, freedom of religious practices and freedom of languages (Gurung, 2009). A few remarkable changes related to this research include recognition of 59 indigenous nationalities of Nepal through promulgation of Nepal Foundation for Development of Indigenous Nationalities (NFDIN) Act of 2002, provision to teach mother languages in local public schools, the fourth amendment of National Parks and Wildlife Conservation Act of 1973 to include the provision of Buffer Zone Management Program in 1994, and formulation
of Forest Act of 1993 and Forest Regulations of 1995 to include the provision of Community Forest Management system (Barnhart, 2011).

However, the multiparty democratic system failed to address indigenous peoples’, women’s and other marginalized communities’ hope to reduce socio-cultural and politico-economic inequalities, promote human rights and social justice (Gurung, 2009). Nepal Communist Party of Maoist raised arms from the least developed region of west Nepal in 1996 to overthrow the king from power and bring democracy in the country. The decade long Maoist insurgency popularly known as “peoples’ war” came to an end after signing a peace accord with the government of Nepal in 2006 (Gurung, 2009; Barnhart, 2011). The Maoist movement had been successful to overthrow the 240 year old royal regime in 2008 and declare Nepal as a federal republic state. Nevertheless, because of the resistance by the Hindu caste based elites in the national bureaucratic networks, media and political party systems, Nepal failed to promulgate federal republic state’s constitution in 2012. Nepali people as well as well wishers of Nepal including the United Nations had a high expectation that Nepal would formulate the new constitution and end the political crisis permanently. UN’s Special Rapporteur on the Rights of Indigenous Peoples’ Professor James Anaya in 2009 had expressed his hope for recognition of indigenous peoples’ rights in Nepal through formulation of the new constitution (Anaya, 2009). The failure to write federal republic Nepal’s constitution also threatens the rights to self-governance, self-determination and autonomy of indigenous nations as per the spirits of ILO Convention 169 and UNDRIP.
2.3.4 Protected Area System of Nepal

The development of protected areas in Nepal is based on national interest, rather than local communities’ and indigenous peoples’ demand. The local communities and indigenous peoples have their own ICCAs (indigenous peoples’ and community conserved areas), which have sustained their livelihoods for centuries and millennia. The modern protected area management system of Nepal expanded to ten national parks, three wildlife reserves, one hunting reserve and six conservation areas by 2010. With designation of Banke National Park, Api Nampa and Gaurishankar Conservation Areas in 2010 Nepal set aside 28,582 square kilometers, and total areas of eleven buffer zones 4,528.5 covers 22.5 percent of its total landmass (147,181 square kilometers) under protected area status (Figure 1.1 and Table 1.1). Shivapuri national park and Dorpatan hunting reserve are yet to declare buffer zones (DNPWC, 2012). The following Figure (Figure 1.1) shows different types of protected areas of Nepal located in different geographical regions.
Figure 2.1: Protected Areas of Nepal

Table 2.1: Protected Area Management System of Nepal (cont’d onto next page)

<table>
<thead>
<tr>
<th>Protected Areas</th>
<th>IUCN Category</th>
<th>IUCN Governance</th>
<th>Designated Year</th>
<th>Area (sq.km)</th>
<th>BZ\textsuperscript{a} Area (sq.km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annapurna Conservation Area\textsuperscript{7}</td>
<td>V</td>
<td>NGO/NTNC\textsuperscript{8}</td>
<td>1996/92</td>
<td>7,629</td>
<td>-</td>
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<tr>
<td>Api Nampa Conservation Area</td>
<td>V</td>
<td>GON/DNPWC</td>
<td>2010</td>
<td>1,903</td>
<td>-</td>
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<tr>
<td>Banke National Park</td>
<td>II</td>
<td>GON/DNPC</td>
<td>2010</td>
<td>550</td>
<td>343</td>
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<td>Bardiya National Park</td>
<td>II</td>
<td>GON/DNPC</td>
<td>1976/88</td>
<td>968</td>
<td>327</td>
</tr>
<tr>
<td>Black Buck Conservation Area</td>
<td>IV</td>
<td>GON/DNPWC</td>
<td>2006</td>
<td>15,95</td>
<td>-</td>
</tr>
<tr>
<td>Chitwan National Park (WHS)\textsuperscript{9}</td>
<td>II</td>
<td>GON/DNPC</td>
<td>1973</td>
<td>932</td>
<td>750</td>
</tr>
<tr>
<td>Dorpatan Hunting Reserve</td>
<td>IV</td>
<td>GON/DNPC</td>
<td>1987</td>
<td>1,325</td>
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<td>Gaurishankar Conservation Area</td>
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<td>GO/NTNC</td>
<td>2010</td>
<td>2,179</td>
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<td>Kanchanjunga Conservation Area</td>
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<td>CCA</td>
<td>1997</td>
<td>2,035</td>
<td>-</td>
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<td>II</td>
<td>GON/DNPC</td>
<td>1984</td>
<td>225</td>
<td>216</td>
</tr>
</tbody>
</table>

\textsuperscript{7} Annapurna Conservation Area

\textsuperscript{8} NGO/NTNC

\textsuperscript{9} Chitwan National Park (WHS)
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<th>Wildlife Reserve</th>
<th>Category</th>
<th>Management</th>
<th>Year</th>
<th>Area 1</th>
<th>Area 2</th>
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<tbody>
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<td>Koshi Tappu Wildlife Reserve</td>
<td>IV</td>
<td>GON/DNPC</td>
<td>1976</td>
<td>175</td>
<td>173.5</td>
</tr>
<tr>
<td>Langtang National Park</td>
<td>II</td>
<td>GON/DNPC</td>
<td>1976</td>
<td>1,710</td>
<td>420</td>
</tr>
<tr>
<td>Makalu Barun National Park</td>
<td>II</td>
<td>GON/DNPC</td>
<td>1991</td>
<td>1,500</td>
<td>830</td>
</tr>
<tr>
<td>Manaslu Conservation Area</td>
<td>V</td>
<td>NGO/NTNC</td>
<td>1998</td>
<td>1,663</td>
<td>-</td>
</tr>
<tr>
<td>Parsa Wildlife Reserve</td>
<td>IV</td>
<td>GON/DNPC</td>
<td>1984</td>
<td>499</td>
<td>173.5</td>
</tr>
<tr>
<td>Rara National Park</td>
<td>II</td>
<td>GON/DNPC</td>
<td>1976</td>
<td>106</td>
<td>328</td>
</tr>
<tr>
<td>Sagarmatha National Park (WHS 1979)</td>
<td>II</td>
<td>GON/DNPC</td>
<td>1976</td>
<td>1,148</td>
<td>275</td>
</tr>
<tr>
<td>Shey Phoksundo National Park</td>
<td>II</td>
<td>GON/DNPC</td>
<td>1984</td>
<td>3,555</td>
<td>449</td>
</tr>
<tr>
<td>Shivapuri National Park</td>
<td>II</td>
<td>GON/DNPC</td>
<td>2002</td>
<td>159</td>
<td>-</td>
</tr>
<tr>
<td>Shukla Phanta Wildlife Reserve</td>
<td>IV</td>
<td>GON/DNPC</td>
<td>1976</td>
<td>305</td>
<td>243.5</td>
</tr>
<tr>
<td><strong>Total Area</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>28,582</strong></td>
<td><strong>4,528.5</strong></td>
</tr>
</tbody>
</table>

2.3.5 Introduction to the Research Site

2.3.6 The Khumbu Region

The Khumbu Region is situated in the north-eastern region of Nepal in the Solukhumbu district of the Sagarmatha Zone (Figure 1.2). The region including the whole area of Nauje (Namche) and Khumjung Village Development Committee (VDCs)\textsuperscript{10} and Thumbuk (Jorsalle) and Tawak, villages of Chaurikharka VDC (Figure 3) was declared Sagarmatha National Park (SNP) in 1976. The SNP area thus corresponds broadly to the northern part of the district known as the Khumbu region. More than 100 permanent and summer settlements of Khumbu (Figure 1.3), with population of 3000 Sherpas, which were legally excluded from the park, were also included under the category of buffer zone (Stevens, 2010c). Nauje, Thamo, Thamewog, Thameteng,
Khumjung, Khunde, Phortse, Pangboche, Dingboche and Pheriche are the major Khumbu villages.

The Chaurikharka VDC, which serves as the gateway and southern buffer zone of the park, is locally known as Pharak (meaning ‘middle’ in Sherpa language). The remainder of 31 VDCs, lie in the southern part of the district and the district headquarter is based at Salleri (Figure 1.2). Nepal government with financial and technical assistance of New Zealand government established the park in 1976 (Stevens, 1993). SNP is IUCN category II11 protected area. Category II protected area is usually uninhabited natural areas. SNP has more than a hundred villages and herding settlement enclaves located within the park boundary, which are technically excluded from the park (Stevens, 1993, 19997; Stevens & Sherpa, 1993). The Sherpa people are one of the 59 indigenous nationalities recognized by the government of Nepal (Subba, et al. 2009). The Khumbu and Pharak regions are believed to have been settled in by Sherpas at the beginning of the 16th century or earlier and Sherpas later settled also in other districts of Nepal from Khumbu (Furer-Haimendorf, 1964; Stevens, 1993).

The traditional economic activities of the Khumbu people were subsistence agriculture, transhumance herding and barter trade with Tibet. The Khumbu region became a popular mountaineering and trekking tourism destination after Nepal’s border was opened in 1950. The advent of tourism in the Khumbu region coincided with the cultural revolution of Tibet in 1959. Tourism soon replaced the transboundary trade with Tibet in the 1960s (Furer-Haimendorf, 1964; Stevens, 1993). Although potato is only the major crop widely grown throughout the region, it is still important part of Sherpa economy. About 22 percent of the households in SNPBZ are dependent entirely on
agriculture and about 37 percent are said to be partially involved. Agropastoralism is still common in villages where tourism has not become the economic activity (MFSC/DNPWC, 2007). Hotel and lodge business along with trekking and mountaineering has become the major profession of the Khumbu people.

The objective of the government in creating SNP was to protect the unique landscapes, flora and fauna of the Mt. Everest region. The total area of SNP is 1,148 square kilometer. The park is also a UNESCO’s natural World Heritage Site listed in 1979. Its boundaries extend north to the Tibetan border, west to the Rolwaling valley and east to the Barun in the Makalu-Barun National Park and Buffer Zone. Its altitude varies from 2,847 meters at the lowest elevation, Monzo (Figure 3) at the park entrance, to Mt. Everest 8,848 meters. Four of the world’s highest fourteen mountains are located in the park; Everest (8,848m); Lhotse (8,501m); Lhotse Shar (8,383m); and Cho Oyu (8,189m) (Stevens, 1993; SNP Management Plan, 2007).

The Dudh koshi and Bhone Koshi or Nangbi Tsangbu are the two major river catchments, which flow from the Khumbu, Imja, Gokyo, Cho Oyu Nangpa glaciers and mountains inside the park to the Sun Koshi river and eventually to the Ganges in India. The park has many glacial lakes, including the holy lakes of Gokyo (Sherpa, 2000; 2008). SNPBJ has 194 species of birds of which 14 species are globally significant, 28 species of mammals and 7 species of reptiles. Snow leopard, musk deer and red panda are endangered mammal species and pine, hemlock, fir, juniper, rhododendron and birch are the major tree species of the SNPBJ (MFSC/DNPWC, 2007).
Figure 2.2: Khumbu and Pharak Customary Regions

Solukhumbu District
Khumbu & Pharak Region

Legend
Khumbu Region
Pharak Region

Source: Topo Maps, DoS, GoN

Designed By: Dacs, B.P.  
Modified By: P. Gurbuz
Figure 2.3: Buffer Zone Settlements of the Khumbu and Pharak Regions


2.3.7 The Pharak Region

The Pharak region borders SNP and comprises 275 square kilometers of the buffer zone to the national park. The region includes at least 40 hamlets and villages (Figure 2.4) and 490 households (MFSC/DNPWC, 2007). The sizes of the hamlets and villages range from two to more than 100 households. The whole area of Chaurikharka VDC is understood locally as the Pharak region (Figure 2.2). More than 3,000 people, predominantly Sherpas, live in the Pharak region. Minorities include blacksmiths, Tamangs, Rais, Magars and others. There is a growing trend of outsiders migrating to the Pharak and Khumbu (especially to Pharak) regions over the last three decades. Tourism is
the major pulling factor for the in-migration (Rogers, 1997; Sherpa, 2000). The Pharak Sherpas practiced swidden agriculture to cultivate some of the nearby forests and herding settlements before the advent of tourism in the region. They also adopted trade between Nepal and India carrying medicinal plants, red panda, pet dogs and Tibetan merchandise prior to the flourishing of tourism in the 1960s (Sherpa, 2000).

Considering the impact of SNP to the adjoining Pharak region, particularly degradation of forest resources, Nepal government declared the Pharak region, the buffer zone of SNP in 2002 (Spoon, 2008). The designation of buffer zone enabled the local communities to access 30 to 50 percent of the park’s revenue for conservation and development activities under the Buffer Zone Management Regulation of 1996 (Buffer Zone Management Plan, 2004; SNP Management Plan 2007). The BZ of the park is inhabited by about six thousand people (3,000 of them in Khumbu inside the national park and 3,000 in Pharak), of which, 90 percent are Sherpa and the remaining 10 percent are immigrants from other parts of Nepal (MFSC/DNPWC, 2007).
Figure 2.4: Settlements, Hamlets and River Systems of the Pharak Region
2.3.8 The Khumbu *Beyul*

Sagarmatha National Park and Buffer Zone is a sacred Khumbu *beyul*\(^2\) declared by Guru Rinpoche (Padmasambhava) in the eight century B.C. The Khumbu *beyul* is a hidden valley, where all forms of lives are regarded sacred, protected and respected for their existence (Stevens, 1993; Sherpa, 2003; Spoon& Sherpa, 2008). Sherpas worship mountains, caves, boulders, streams, lakes, forests, trees, wildlife and refrain from polluting, destroying and killings of these resources since they first settled in the valley in or before the sixteenth century (Stevens, 1993, 1997, 2008, forthcoming; Sherpa, 2003; Wangmo, 2005; Spoon & Sherpa, 2008). For example, many of the mountains in the Khumbu and Pharak regions have a Sherpa name that denotes gods or goddesses (Furer-Haimendorf, 1964; Wangmo, 2005, Spoon, 2012). In the locals’ belief, destruction of plants, animals, land, water and air can bring misfortunes in the valley and penalize the actors individually or collectively (Sherpa, 2003, 2008).

Khumbi yul-lha, the mountain standing right above Khumjung and Khunde villages are regarded as Yul-lha, the guardian god of the Khumbu country. Yak, sheep and goat are considered the livestock of Khumbi Yul-lha, of the Khumbu *beyul* appointed by Guru Rinpoche (Furer-Haimendorf, 1964; Stevens, 1993; Sherpa 2003). The sacred text of Guru Rinpoche, Pema Kathang, spells that the Khumbu *beyul*, like other *beyul*, can be resided in by good hearted people even when rest of the world suffers from war, disease, hunger, terror and other malicious problems (Sherpa, 2003; Wangmo, 2005; Spoon, 2012).
People of today might expect that beyul has clear boundaries like a VDC or a district. However, it is difficult to determine the physical boundaries of a beyul. It has a territorial coverage based on spirituality, which has three layers that is “sang” (mind), “nang” (inner) and “chhi” (outer). Sang is the spiritual value that one experiences, nang is the core area, where concentration of biological and physical attributes are present and chhi is the outer area of these resources (Sherpa, 2008).

2.3.9 Internal Colonization of the Khumbu Beyul

The conservation, management and governance of natural resources have further strengthened in some areas of Khumbu by customary institution like nawa and dee systems since the middle of the nineteenth century (Stevens, 1993, 1997). However, Panchayat system of autocratic monarchy regime superimposed the Sagarmatha National
Park on the Khumbu beyul in 1976 without free, prior and informed consent of indigenous Sherpa people (Stevens, 2010b). The process of SNP designation can be termed as internal colonization by the territorializing central government (Stevens, 2009, 2010b). Though different forms of resistance against the park rules by the Sherpa community of the Khumbu took place until the late 1990s (Stevens, 1993, 1997), no particular legal recognition has been acknowledged by the government for the sacred sites and refuge of Khumbu beyul until now. However, the concept of beyul has been recently promoted in public domain and the Sherpa community by Dr. Lhakpa Norbu Sherpa’s writings (Sherpa, 2005; Spoon & Sherpa, 2008) and production of the “Beyul Sacred Hidden Valleys of the Himalaya” documentary film in 2008.

This ‘beyul refuge’ can also be recognized as a regional Indigenous Peoples’ and Community Conserved Area (ICCA), a de facto indigenous peoples’ protected area, which is one of the IUCN’s four protected area governance types along with government managed, shared and private managed governance (Stevens, 2010b). There are many individual sacred forests, such as lama’s forest and monastery groves as well as sacred lakes, boulders and mountains within the Khumbu beyul, which are protected and governed through customary laws, cultural and religious beliefs (Stevens, 1993). Association of these different ICCAs enriches the regional Khumbu beyul. However, the village level’s ICCAs as well as the regional beyul ICCA are yet to be recognized by the Nepal government through legal provision (Stevens, 2010b).

2.3.10 The Issues/Situation

Sagarmatha National Park buffer zone is a regional Sherpa ICCA as well as a sacred beyul, because it includes a number of sacred ICCA forests, lakes, groves and mountains
(Stevens, 1993; 2010b; Spoon, 2008). Much of the conservation success stories of the SNPBZ are interdependent with cultural and religious practices of the local Sherpa people (Stevens, 1993, 1997). The Sherpa customary practices, institutions and governance have played major roles in biodiversity conservation and environmental protection. However, Sherpa people’s such conservation contribution has not been reflected in the park policies and plans formally (Stevens, 2010b). The existing government practice of national park, buffer zone and community forest governance and management in the Khumbu and Pharak regions of the SNPBZ seem to centralize power in the state and state agencies only. By ignoring or insufficiently recognizing and supporting the centuries old conservation significance of Sherpa people in the park, buffer zone and community forest management and governance may jeopardize the biodiversity in the SNPBZ. This issue needs to be investigated and brought to public attention and academic discussion for the benefit of biodiversity conservation, livelihood improvement of the local communities and equitable rights-based conservation, and also Nepal meets the international standards of conservation.
CHAPTER 3
CUSTOMARY ICCAs PRIOR TO 1960s AND AFTER 1960s

This chapter assesses the customary forest governance and management of the Pharak region. In the course, it investigates the motive behind conservation, management, and governance interests of the Sherpa custodians. The chapter discusses and reveals Pharak Sherpas’ ways of thinking, belief systems and values to nature, particularly of the mountains, forests, trees, wildlife and associated lands and territories. It presents the case study documenting that the Indigenous Peoples’ and Community Conserved Area (ICCA) forests governed by the Sherpa community even before the 1960s managed to survive to date while government managed forest degraded severely during District Forest Office governance after the 1960s. It also presents a case study of emerging sacred ICCA forests under the state-formulated Buffer Zone Community Forest User Group Regulations.

The decade of the 1960s is used as the timeframe in this chapter for a few reasons. Firstly, Nepal had feudal Panchayat regime under the leadership of autocratic King Mahendra Bir Bikram Shah in 1962. During the Panchayat regime in 1962, the constitution promulgated Nepal as a Hindu state (Anaya, 2009). Secondly, the first Private Forest Nationalization Act was promulgated in 1957. Thirdly, the Nepal Forest Act was passed in 1967. Likewise, Grazing Land Nationalization Act and Land Reform Act were promulgated in 1964 and 1966 respectively. Finally, the Lukla airstrip was built in 1964 and trekking tourism in the region began after the 1960s.
3.1 The Pharak and Khumbu Sherpa’s Belief System

Sherpa communities residing in the Pharak and Khumbu regions have similar belief and value systems for mountains, forests, wildlife, grazing commons, water systems and nature in general. The overall livelihood strategies are governed by the Buddhist principle, which refrain from taking any lives, be it plants or animals, and emphasize on giving love and compassion to all sentient beings on earth, maintaining sacredness of natural resources and doing no harm (Furer-Haimendorf, 1964; Wangmo, 2005).

The Pharak and Khumbu regions and perhaps beyond are considered by residents as the Khumbu Beyul, a sacred hidden valley, consecrated by Guru Rinpoche in the eighth century B.C. (Stevens, 1993, Wangmo, 2005, Sherpa, 2008). The concept of Beyul stipulates that only good hearted and sacred soul people can reside in it. Beyul residents have to refrain from killing, quarreling, and doing bad things, which are religiously and culturally unacceptable (Sherpa, 2008, Spoon, 2008).

Guru Rinpoche had designated yul-lhas (village deities) as protector gods to people, plants, animals, land, water and landscapes. Since then, the local Sherpa residents respecting yul-lhas in the Pharak and Khumbu regions have been pursuing the inherited belief system. According to yul-lha tradition, Sherpa people respect mountains as sacred guardian deity of the village and associated forests, lakes, river and water sources, wildlife, grazing commons and landscapes as an integral part of yul-lha system. This traditional, localized values and belief system have been mainstreamed in the lives and livelihoods of Pharak and Khumbu Sherpa communities. The interaction, interrelationship and interdependence between the Sherpa people and the natural
ecosystem have shaped the landscapes of the Pharak and Khumbu regions since Sherpas’ first settled in the Khumbu Beyul at the end of fifteenth century (Furer-Haimendorf, 1964; Stevens, 1993; MFSC/DNPWC, 2007).

The Buddhist values and belief system have been mainstreamed to all plants, wildlife, trees, water bodies and ecosystems. There are a few forests, which have been preserved in the name of Lama (monk) in the Khumbu region, but there are no particular forests of this nature in the Pharak region. Apart from forests preserved due to actions of or in memory of lamas, there are no forests considered as sacred because of specific deities, yet Sherpas believe that trees, wildlife, landscapes, water bodies have divinity called zyptak and some water sources mainly originating from underneath a single tree or combination of several species of trees have lu-spirits(Figure 2.1). Any human activities that upset zyptak or lu spirits may cause punishments in the form of natural disasters. In Sherpa Buddhist tradition, Mountains are regarded as deities and the majority of mountains have specific names after the deities. Any natural resources such as forests, wildlife, minerals, water, grazing commons, rock, earth and landscapes that are related and connected with the sacred mountain ecosystem is considered sacred and deserves conservation spiritually.

Figure 3.1: Blue-pine and holly lu-trees, Monzo and white-beam lu-tree at Pemacholing
The Sherpa people’s cultural, religious and spiritual relationship with nature and natural resources in the Pharak, Khumbu and beyond interprets that conservation of biological diversity is an integral part of Sherpa lives and livelihoods. With these values and beliefs, good-minded people, wildlife, forests and other natural resources can co-exist in a sacred sanctuary of Beyul. Therefore, all living and non-living beings have spirits and require mutual respect for their survival and sustenance. These kinds of mountains, forests, wetlands, water systems and special features of landscapes, which are usually governed by indigenous peoples and local communities through their religious and cultural beliefs, values and interests are termed as Indigenous Peoples’ and Community Conserved Areas (ICCA) by IUCN, particularly from the Fifth World Parks’ Congress 2003. According to International Union for Conservation of Nature (IUCN),

ICCA are natural and/or modified ecosystems containing significant biodiversity values, ecological services and cultural values, voluntarily conserved by Indigenous peoples and local communities, both sedentary and mobile, through customary laws or other effective means (http://www.iccaconsortium.org).

The IUCN’s World Conservation Congress, which took place in Barcelona, Spain in 2008, recognized ICCAs as one type of conservation governance among four types of governances identified and recognized by IUCN.

3.2 Pharak Sherpa Forest Governance: ICCAs in the Pharak Region

The area of Chaurikharka Village Development Committee (VDC) that lies between Namche (Nauje) and Khumjung VDCs in the North and Juving, Taksindo, Waku, Bung, Cheskam and Beni VDCs in the South is locally known as Pharak region. The altitude of Pharak ranges from approximately 2,000 meters at Nakchung village to 6,623 meters to the summit of Mount Thamserku above Monzo village.
Historically, the Pharak region had an abundance of coniferous and mixed broadleaved old-growth forests, intact habitats, diverse wildlife species and forest and non-timber forest products. However, some of the larger villages like Nangbuk, Dungde and Lukla had relatively large populations and had more chances of forest depletion. In order to maintain the required amount of forest biomass for agricultural and livestock farming, timber for building and firewood for energy use, these villages have adopted conservation measures to protect their village forests for more than a century.

3.2.1 Nangbuk ICCA Forests

The Nangbuk community has protected more than one hundred hectares of broadleaved mix forest of rhododendron (*Rhorodendron arboreatum*), oak (*Quercus semecarpifolio*), hemlock (*Tsuga dumosa*), blue pine (*Pinus walichianna*), silver fir (*Abies spectabilis*), angeri and thorny species between Nangbuk and Lukla for more than a hundred years (Figure 2.2). The village has formulated its own forest management and governance rules. No one can enter the forest for logging and collection of fodder and firewood. Only leaf-litter collection\(^{15}\) was permitted from the Nangbuk forest after 1965. Fodder and firewood collection was allowed until 1965, three years after the Panchayati regime was introduced in Nepal in 1962 A.D.. Only dead wood collection as firewood for religious activities in the Nangbuk monastery is permitted until today. According to the village rule, all the villagers share equal responsibility to safeguard the forest. Anyone caught for cutting trees or collecting firewood would be penalized by confiscating the implements and the wood product and charging cash fines up to Rs. 2,000 (US $ 25)\(^{16}\).
Figure 3.2: Nangbuk ICCA forest (left) and Thongbu-chukpu oak lu-tree and Kyongma ICCA forest (right)

The Nangbuk locals claimed that the Nangbuk forest has been protected for more than 150 years. The senior citizens of Nangbuk recall that the kyakising (protected forest) of Nangbuk was there even before the forefather of late Dawa Sungdar Sherpa of Nangbuk. Dawa Sungdar Sherpa was Vice-Pradhan Pancha (Panchayat Vice-Major) from Nangbuk village. He died in his late fifties around 2000. In the 1960s, Nangbuk forest had a chepras (forest guard). According to the elderly people, the roles and responsibilities of a chepras was to watch the forest and fine the violators.

The main objectives for conservation of the Nangbuk forest were preserving the village scenery, protecting watershed, maintaining firewood and leaf litter stocks, protecting from landslides, maintaining fresh air and good environment. The Nangbuk Sherpa community takes the management and governance role to date, but access to leaf litter collection is open to Lukla, Kyongma and Dungde villages. The major threat for conservation of this century old Nangbuk ICCA forest usually comes from Lukla village. There have been cases of Lukla people cutting trees overnight.
3.2.2 Kyongma ICCA Forest

The oak forest located between Lukla in the east, Lomzo in the west, Tsen Mountain in the north and the Khumbu trail in the south is the Kyongma, Dungde and Lomzo community’s ICCA forest (Figure 2.2). These one hundred and one hectares of homogenous oak (Quercus semecarpifolio) species forest above Kyongma village has been conserved by the Kyongma and Dungde Sherpa community for more than one hundred years. According to the local interviewees, this oak forest is as old as Nangbuk ICCA forest and has been conserved as kyaksing (protected forest) since Rana regime in Nepal before 1950. One of the senior interviewees reported that the Kyongma oak forest was a religious forest in the past and was changed to community forest later. The forest was protected by nawa, same as in Khumbu. People also called it chepras who used to look after the forest and collect fines (najang) from violators. In the old days, there were plenty of forests but only a few forest users in the Pharak region. So people cleared forests and converted them into farmland to grow more agricultural products. It was not restricted to log timber during nawa administration except the Kyongma ICCA. The Kyongma oak forest however is not included as a religious forest in the Constitution of Red panda CFUG 2004. The interviewee observed that there is not much difference between “religious forest” and “community forest”, because after all the local community is the manager, user and governor. What is special about the Nangbuk ICCA and Kyongma ICCA forests is that though they are connected and Nangbuk forest is located only about a 100 meter’s lower than Kyongma forest, they have totally different species of trees in the forests. Nangbuk forest is a heterogeneous broadleaved forest, while
Kyongma forest is a homogenous oak forest. The Kyongma oak forest is also the only and the biggest oak forest in the Pharak and one of the biggest in the Solukhumbu district (Stewart, 1984).

Though oak is a fodder species and Sherpa communities in the Pharak region used to feed cattle with oak fodder, the Kyongma oak forest has been preserved by the Kyongma and Dungde community as a kyaksing. Since the forest is old and their fodder may not taste good, cattle do not prefer eating the fodder. At the same time, the Kyongma community also wanted to preserve this forest for sustainable use of leaf-litter and dry firewood. The forest also produces at least five different varieties of edible mushrooms in monsoon season, namely, martip, chuldi, tse, churseep and changu mushrooms (shyamung in Sherpa language). Changu mushroom is relatively bigger in size than the others.

The objective behind the protection of this forest is also for the sustainable use of forest biomass. There are no sacred or spiritual values associated with its overall conservation goal. However, the Thongbu Chukpu with lu-spirit (rich tree in Sherpa language, Figure 2.2), is located near the Kyongma oak forest. According to Nick Ledgard, the forest scientist of New Zealand Forestry Institute, “Thongbu Chukpu can be one of the oldest, perhaps more than 500 years old, and the biggest oak trees in the world” (personal communication, 1996, Figure 2.2). The reason for its successful conservation is that the Sherpa community regards this tree sacred as lu-tree. Lu is considered as water spirit and is provider of wealth and prosperity according to Sherpa’s belief. Lu can reside in trees with water sources and huvang. There is a huvang (a small shrine with valuable vase called phumpa inside it) attached to the stem of the tree at the
ground surface. It is fenced by stone-wall and has to be offered sacred prays according to
the Buddhist calendar. Since it is a communal lu, people residing nearby take care of the
lu. It may be logical to claim that Thongbu Chukpu lu-tree has been the mother tree for
producing oak seeds around Kyongma area. There is a water source under its canopy and
the water has been supplied to Kyongma, Bosom and Dungde villages. If people upset the
lu by polluting the water source or cutting the branch of the lu-tree around the Thongbu
Chukpu lu tree, water will dry and the person who disturbs the lu will become ill. Lu
spirit is believed to sleep over autumn and winter and wake in spring and summer.
Wildlife like barking deer, jackal and different bird species are found in the Kyongma
ICCA forest.

3.2.3 Lukla ICCA Forest

A patch of forest mixed with silver fir, hemlock and rhododendron extended over
an area of 100 hectares is located above the Lukla airport. The forest is surrounded by the
gorge above Lukla in the east, the watermill river in the west, the main trail to Khumbu in
the south and the bamboo terrace in the north. The forest has been conserved as a
kyaksing (raniban) since time immemorial. Some interviewees argue that the Lukla
kyaksing (Figure 2.3) could be as old as Nangbuk and Kyongma ICCAs. However, as
tourism kept growing in the Khumbu, the trend of in-migration remained a pressure on
the Lukla ICCA forest. The degradation of the Lukla kyaksing ICCA forest became a
challenge and the local indigenous Sherpa residents felt urgency to protect it from further
degradation. The then immediate ward Chairperson of Lukla, late Mr. Mingma Nuru
Sherpa (Mi nu) took initiative to conserve the forest by signing a public declaration in
Shrawan 28, 2039 B.S. (August, 1982). The declaration signed by sixty-six households of the Lukla village including government offices, airlines and trekking agencies agreed to strictly protect the forest above Lukla airport for the greenery of the airport and control of landslides. The rules seemed strict and anyone who collected fodder, logged trees and collected firewood would be fined Rs. 500 and Rs. 300 per load respectively. The fines would be provided to the Village Panchayat. If anyone’s servant collects firewood or fodder with or without knowing the rule, he or she would be kept under police custody for twenty-four hours (The English translated version of the community bond is provided in Appendix 2). There were other forests, particularly at Naabuk and Thukdingma towards Mera Peak summer herding areas that were opened for local use and not protected as kyaking. The preservation of aesthetic attributes seemed the main goal for protecting the forest above Lukla airport in the 1980s. Lukla community relatively has fewer private and monastery forests than other Pharak villages.

Apart from the above mentioned three forests, there are no such forests which were protected by the local community as kyaking before the 1980s. Some of the bigger villages like Monzo, Rimijung, Ghyuphete and Lhowa had relatively bigger common forests and were collectively used. After the District Forest Office governance and adoption of Community Forest User Group governance system in the Pharak region, kyaking for conservation of red panda habitat and village greenery became a common practice in a couple of CFUGs. This will be written in detail under the red panda conservation area section.
3.3 *Lu* and *Lu*-Inhabited Tree Species

*Lu* (Naga in Sanskrit) is a female serpent spirit of water and land (Sherpa, 2008). *Lu* can be of two types, one is white and one is black *lu*. It is believed that *lu* is the provider of wealth and prosperity or good fortune if it is kept neat, clean and sacred. Likewise, saptak or sadak is the lord of land, boulders and other natural resources who is considered more aggressive and furious than *lu*. According to Sherpa belief, *lu* is present commonly at water sources where one or more than one tree stands. It can also be present in the house on the ground floor of two-storied houses or nearby Sherpa houses. In-house *lu* resides in a small shrine, known as *luang* built at a quiet corner of a house (Sherpa, 2008). A sacred treasure vase (plumpa) containing an assemblage of more than 108 different samples of grains, jewels, fragments of precious metals, clothes, coins, etc are placed inside the *luang*. *Lu* is often believed to be present in forests and villages where water streams, ponds and lakes are located. There are strong beliefs in Sherpa communities that if *lu* or saptak trees are damaged or its water sources are polluted, the
incumbent or the landlord would suffer from illness. The sufferings from lu’s penalty are usually believed to be skin and organ related diseases. In such cases Sherpa people consult Shamans for diagnosing the problem, identifying the lu and healing. In order to remain safe from lu sufferings, Sherpa elders and parents train their children and juniors about lu spirits, and types of services that need to be offered to lu spirits.

Most of the Pharak and Khumbu Sherpa families have their own private lus. Almost every household in Rimijung has a lu. Secondly, there can be communal lus in villages as well. For example, there is a communal lu at Dozum Chuwa at Monzo who is believed to reside in the old and huge hemlock tree and the spring. There is one at Rimijung where a blue pine, juniper and magnolia (patakari) tree nearby a pond is located. These trees have both lu and saptak. The Rimijung community fetches sacred water from the pond during losar and brings offerings to gods. Piped water has been brought to the same site for additional supplies in the village as well. Ghyuphete has one communal lu with salix trees and spring water. The Rimijung Biswokarma community who believes in Hinduism has their own naga (lu) represented by shoblung (white beam) and apple trees. The Biswokarma community in Gyuphete has neither a communal nor private lu. Yulnying surprisingly has several varieties of lu trees, which include sillichangba (salix), angeri, white beam and oak trees and spring water spread over an acre of land below the present village (Figure 2.4). It is located en-route to the old Everest trail, which became off-route after the Digtso glacier lake flood damaged part of the trail and village on August 4, 1985 (Raux, 2010). This is a community lu, where the Yulnying community fetches sacred water during Losar from the lu-chuwa. A lu-phumpa offered by Tengboche Rinpoche has been installed in the Lu-luang in 2009.
There is a belief that *Sapchu phumpa* should be placed at the top of the village and *Lu-phumpa* below the village. This is for the protection of the village from any misfortunes and disasters. Kyongma has another communal *Lu* residing in thongbu-chukpu (rich-tree in Sherpa) oak (*Quercus semecarpifolio*) tree. White beam, blue pine and silver fir are the major *lu*-trees in Tate. The majorities of *lu* trees in Pharak are many centuries old and remain as repository of genes, species and habitats retaining the history of many species of plants that have existed in the Pharak Sherpa landscape. More importantly *lu*-trees stand as source of spiritual aspirations, school of traditional ecological knowledge base and Sherpa cultural history.

**Figure 3.4:** Yulngying *lu*-trees sillichangba (salix), angeri, white-beam and oak tree species spread over a hectare of land

The majority of Pharak Sherpas have private *lus*. As mentioned earlier, they reside in various tree species. It is interesting to note that most of the *lu*-trees are non-poisonous and aromatic plants throughout the Pharak and Khumbu regions. Non-poisonous plants are considered as incense and woods are used for cremation in Sherpa culture as per Buddhist tradition. Since Pharak has more variety of vegetation, *lu*-trees are also diverse in comparison to Khumbu. Some of the *lu*-trees in Pharak are centuries and can even be millennium old; they are giant, majestic and impressive (Figures 2.1 and
The common lu-tree species in Pharak are shoblung (white beam), blue pine (Pinus wallichiana), Shugpa (Tree juniper, Juniperus recurva) gyising (holly, ilex), ermang (Sichuan pepper, Zanthoxylum sp), chha shing pa (Acer campbellii), and okhar (wild walnut). The concentrations of different varieties of lu-trees are found in the Monzo, Rimijung, Nangbuk and Dungde villages. Among these villages, the Table 2.1 shows that Rimijung alone has nine different species of lu-trees and six households have Shoblung lu-trees. Shoblung (white beam, Figure 2.1) seems to be the dominating species in Rimijung. White beam fruit is traditionally offered to chowa rituals in Sherpa villages, while its dry leaves were used as tea before the 1970s in some of the Pharak villages. Interestingly, shoblung as a lu-tree is found in each and every Pharak village.

Pemacholing monastery’s shoblung tree has a lu spirit and the tree has historical connection with the establishment of the Pemacholing monastery and Sherpa settlement in the area. The shoblung lu-tree of the Pemacholing monastery has been there even before the time when the holy guriku- Thuwa first came to Rimijung before the time of Lama Sangwa Dorjee, Ralpa Dorjee and Khenpa Dorjee in the 1660s A.D. (Figure 2.5).

**Figure 3.5: Juniper lu-tree (left) and Figurele lu-tree (right) in Rimijung village**

These different lu-trees are habitats of diverse wildlife such as squirrels, langurs and monkeys, birds and insects. Birds like the spotted owl, migratory pigeon and crow
usually visit these *lu-trees*. Apart from shelter and refuge, these creatures are attracted to these trees by their fruits. The wildlife might have been playing significant role in dispersing white beam and other vegetation seeds throughout the Pharak region. What is particularly interesting is that white beam trees are present in every village in the Pharak region and they are mostly the abodes of *lu*-spirits.

The age factor does matter in propagation of different vegetation. The Himalaya CFUG nursery at Banker produced some white beam seedlings and distributed in 1998. Mrs. Dachokki Sherpa, Manager of the Himalayan Trust Phurte nursery, who has more than 30 years of nursery management experience, argues that seeds of old trees do not germinate or are not healthy. She compares plant life with human life and argues that after a certain age, plant seeds stop germinating. If this is the case, the question might be raised: do old *lu*-trees serve as gene and species stock? This argument needs to be scientifically investigated to reveal life expectancy, productive age and germination capacity of seeds of different plant species that are available in the Pharak region.

However, Sherpa people believe, based on *lu*-tradition that if the *lu-trees* die or a plantation is required to heal a sick person of the family, another tree has to be planted and protected sacredly. Shamans would tell the types of tree to be planted in addition. This practice orients the Sherpa people to keep plants unharmed, nurtured and respected as a sacred *lu*-spirit. This animistic practical cycle and belief system enrooted in Buddhism is the key factor that retains the interrelationship and interdependence between plants, animals and human ecologies in the Pharak region and beyond.
### Table 3.1: Diversity of *lu*-tree species in Rimijung

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name of <em>lu</em>-owners</th>
<th>Different species of <em>lu</em>-tree in Sherpa language</th>
<th>Nepali name of the <em>lu</em>-tree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mr. Ang Kancha (Pasang Nuru) Sherpa</td>
<td>Chha shing pa (Figurele, <em>Acer Campbellii</em>), tsarwa (Sorbus, Sorbus microphylla), Nyungma (Bamboo, Arundineria sp.)</td>
<td>tsarwa- ris, Ngungma- malingo</td>
</tr>
<tr>
<td>2</td>
<td>Mr. Pasang Nuru Sherpa</td>
<td>Shoblung (white beam, <em>Sorbus cuspidata</em>)</td>
<td>Mel</td>
</tr>
<tr>
<td>3</td>
<td>Mrs. Ang Mendok Sherpa</td>
<td>Okhar, Shoblung, juniper &amp; Ngungma</td>
<td>Okhar, malingo &amp; mel</td>
</tr>
<tr>
<td>4</td>
<td>Mrs. Ani Kanchhi Sherpa</td>
<td>Shoblung</td>
<td>Mel</td>
</tr>
<tr>
<td>5</td>
<td>Mr. Chundi Karsang Sherpa</td>
<td>Chha shing pa</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Biswakarma community</td>
<td>Shoblung &amp; syau (apple)</td>
<td>Syau</td>
</tr>
<tr>
<td></td>
<td>(kami) jointly worship the</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>same <em>lu</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Mr. Ngang Konjok Sherpa</td>
<td>Shugpa (Tree juniper, <em>Juniperus recurva</em>)</td>
<td>Dhupi</td>
</tr>
<tr>
<td>8</td>
<td>Mr. Lhakpa Gyalzen Sherpa</td>
<td>Shoblung</td>
<td>Mel</td>
</tr>
<tr>
<td>9</td>
<td>Mr. Datenzi Sherpa</td>
<td>Shoblung</td>
<td>Mel</td>
</tr>
<tr>
<td>10</td>
<td>Mr. Ngang Nuru Sherpa</td>
<td>Shugpa</td>
<td>Dhupi</td>
</tr>
<tr>
<td>11</td>
<td>Mr. Datenzi Sherpa (Thulo)</td>
<td>Chha shing pa</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Mr. Nima Temba Sherpa</td>
<td>Methang (Himalayan blue pine,, <em>Pinus wallichiana</em>)</td>
<td>Sallo</td>
</tr>
<tr>
<td>13</td>
<td>Pemacholing Monastery</td>
<td>Shoblung</td>
<td>Mel</td>
</tr>
</tbody>
</table>

### 3.4 Sacred Sites

There are many sacred sites in the Pharak region. Most of the natural sacred sites are mountains, boulders, lakes, *lu*-trees and water sources and associated forests, trees and wildlife. Each of the surrounding snow-capped mountains and smaller peaks has local Sherpa names, depict *Yulhas* which require regular services to appease them. Sang serkyim is the regular prayer that needs to be offered to *Yulhas*, if possible every morning. For example, the serkyim textbook calls the names of most of the *Yulhas* including Khumbila and others. One of the serkyim prayers, hand written by an expert nun of Ghomiha late Ani Ngang Chhoten Sherpa, is being prayed by several families in the Pharak region. Late Mrs. Yongmu Sherpa at Monzo had a copy. In Rimijung, Datsenin Sherpa retains a copy of the serkyim textbook. He prays once in every three
months in houses of Ang Mendok Sherpa, Dawa Tenzi Sherpa and at his own home. The *serkyim* or Chyangbi text calls names of all *Yulhas*, that is Lukla Tsen, Kusum Khangkaru, Ghomlha Gelu, Tharang Gelu, Sugpa Nimare, Pharila, Shorung Yulha, Hilla Thisumkaru, Thangar Thangje, Kyasharwa, Thingri, Chibri, Phawa Singu (*Swoyambhu*), Takmalhogen and many more names of mountains of Solukhumbu and some of the pilgrimage sites of Kathmandu valley are also in Chyangbi or *Serkyim* peja (in the textbook of village deity prays). Most of Rimijung people worship Sugpa Nimare, Ghomlha Gelu and Chuserma Gelu (resided in the big rock where late Mr. Ngang Jepa’s hermitage is located). Sugpa Nimare is the peak and forest below Pharilha peak. Nobody falls trees and collects forest product from Sugpa Nimare, because of its proximity and taboos. The forest is very dense and people cannot enter easily.

The Rimijung Sherpa community pays offerings to these *Yulhas* three times in a year in the spring, autumn and winter. Sadly, many households have given up the prayers, because younger generations cannot read the holy prayer text (*peja*) written in Samobodha script. The local public school like Shree Jana Sewa Lower Secondary School of Gyuphete does not teach *cho* (Buddhism). Shree Yuba Barsa of Monzo introduced *cho* classes during my chairmanship up to primary level in the mid 1990s. Shree Mahendra Jyoti Higher Secondary School has introduced *cho* classes at the primary level recently. Other primary, lower secondary and secondary schools in the Pharak region do not teach *cho* in schools. Therefore, younger generations cannot perform *serkyim* offerings and appease the village deities as the ancestors used to do.
3.5 Sacred Forests After 1960: Land Tenure and Forest Governance

The central government initiated legal and political decisions after the 1960s that have had implications on change of the Pharak forest ecology. Different legislative provisions made under various political regimes of the country have made both negative and positive impacts in the forest and wildlife biodiversity and livelihoods of the Pharak Sherpas.

After the government’s cadastral land survey campaign in 1994 (2052 B.S.), three types of land ownerships that is “private,” “monastery” and “community forest” became apparent in the Pharak region. The most of the Pharak forest is under community ownership as per the buffer zone community forest user group (BZCFUG) provision; the second major forest is under private ownership and the third one is the monasteries’ owned religious forests. There are some forests in collective property ownership, including of Mahendrda Jyoti Secondary School, Jana Sewa and Yuba Barsa Lower Secondary Schools as well. Mahendra Jyoti has a patch of oak forest at Kyongma and blue pine forest at Ngute, ward number 7, below community farmland and above Dudhhkosi. These forests were registered during napi (government cadastral land survey) in 1994. Jana Sewa School, Ghyuphete has some ropanies of forest below the school compound. Similarly, Yuba Barsa School has about four ropanies of forest around the school compound. They are managed and governed by the School Management Committees. These forests were registered in the ownership of schools for their timber use and income generation purpose.
3.5.1 Private Forest

Many of the Pharak Sherpa families, who traditionally practiced swidden agriculture or practiced transhumance land (*kharkas*), were registered as private forest. Some of those *kharkas* already had trees, some were planted, and many of them had natural regeneration over the last fifteen years. Therefore, many of the Pharak locals have significant private forests, which are both natural regeneration and planted (Figure 2.6).

3.5.2 Monastery Forest

The second type of important land ownership is the monastery forest. Many of the Pharak monasteries registered barren land or land around the monastery as monasteries’ property. Some of these lands also contained substantial amounts of secondary growth forests. The majority of primary old-growth forests were logged and sold by outsiders and local people before the land survey came, during the District Forest Office’s governance tenure. The forest around Pemacholing monastery of Rimijung is the biggest monastery owned forest. The total land covered by forest around Pemacholing and Tekhongma monasteries at Rimijung is 12,300 square meters (1.23 ha, Figure 2.6). Pemacholing is the oldest monastery built around the 1660s. Tekhongma monastery was built in the early 1970s by the Pharak Sherpa community under the leadership of Lama Dorje Sherpa of Yulngying and Nima Nuru Sherpa of Tawak for His Holiness Zatrul Rinpoche and is located just about 200 meters above Pemacholing. Pemacholing and Tekhongma monasteries own 6,975 and 5,325 square meters of forested land respectively. The Pemacholing monastery management committee oversees the management of both the monasteries’ forests and makes forest use decisions. The Pharak
Sherpa community is in the management and governance board and the forest around the monastery is limited only to the monasteries’ own use. The use of the forest by local people for timber and firewood is totally prohibited. The forest area extends from Rimijung village to Ghomlha nunnery settlement.

Figure 3.6: Pemacholing monastery forest (top), private forest (bottom) in left photo, and community forest, red panda conservation area and Ngangbu-khola in (right photo)

The monasteries’ forestland was once registered illegally by one of the Pradhan Panchas (Majors) of Chaurikharka Panchayat in the 1970s. He registered the land from Dudhkoshi to Gomlha nunnery settlement. The Pharak community opposed the deed and later decided to register the land in the name of Pemacholing monastery. However, until Nepal government’s cadastral land survey (napi) came in 1994, the ownership of monastery forest was not apparent. Even after the land survey in 1994, some of the management committee executives logged and sold the timber to Nauje. One of the chairpersons of the monastery management committee cleared the old-growth blue pine forest around the Pemacholing monastery arguing that increased forest coverage around the monastery is a fire risk to the monastery. The village people walk with bamboo lit on fire at night during the festivals. There will be less risk of forest fire if there are no trees around the monastery. A monk responsible for management of the monastery also logged
monastery forest in the name of monastery maintenance, but he later tried to smuggle all
the lumber to Nauje over nights. Other senior monks and local people caught all the
lumber at night while being smuggled and used them for the maintenance of the
monastery in 2001. The monastery management committee also made rules to give three
trees from the monastery forest to those who build a new house at Rimijung and
Phakding. Because of these various decisions, the Pemacholing monastery forest was
badly degraded in the late 1990s.

The community forest user group system that was reinforced in the late 1990s
throughout the Pharak region strictly prohibited the sales of timber in the Khumbu
market. In addition, the conservation awareness raised among the local community
helped save the Pemacholing monastery forest over the last one and half decades. Now,
people respect monastery forest as the monastery’s property, and the use or misuse of the
monasteries’ property is a religiously inappropriate and socially humiliating act.
Moreover there is also belief that one who misappropriates religious property will also
have to face negative repercussions in this or the next life. Therefore, people started to
regard the monastery forest as a sacred forest. Although the Buffer Zone community
forest user group regulation has the provision of owning private forest, religious forest
and community forest, the Pemacholing monastery forest is yet to be registered as a
religious forest. The positive aspect of the Buffer Zone Regulation is that the monastery
or religious monuments can own forest and retain the management and governance
authority. The Pharak monastery forests very well fit into the category of religious forest
if registered in the park office.
Nangbuk monastery owns 10.68 hectares of land on the other side of Dudhkosi behind Nagchung village, which is mostly steep cliff and some area has forest. Lukla monastery had more than 2 ropanies of forest but the Armed Police Force of Nepal forcefully took it away during the Maoist insurgency in 2002. Since the people's war has ended, the police force has left Lukla. The monastery has not yet taken initiative to return the land ownership back in the name of the Kemgun monastery. Rangdok Samdeling monastery owns more than fifty ropanies (2.54 hectare) of barren land that extends from Rangdok khola to Nachipang. The claim of ownership of the land became a source of serious community conflict during the land survey in 1994. In mediation of Lhakpa Nuru Sherpa, every household agreed to donate the land to Samdeling monastery. The Lomzo community has planted blue pine seedlings in the periphery of the monastery over an area of approximately three ropanies of land (Figure 2.7). The Lomzo Sherpa community offered the monastery to Tengboche Rinpoche. The Rinpoche is retaining the land ownership document and he also gave Rs. 50,000 to the monastery committee for its management. Rinpoche informed the Lomzo people that he was only retaining the document, but use and management responsibilities of the Samdeling monastery lie with Lomzo people. Finally, the Utchecholing monastery at Monzo is a private monastery and owns about an acre of land covered with blue pine forest. Currently, there are six monasteries in the Pharak region, which own 246 ropanies (12.51 hectares) of forests (Table 2.2).
The religious forests of the Pharak region owned by monasteries are probably the youngest ICCAs. Forest and wildlife biodiversity conservation dedicated to the prosperity of Buddhist faith is the key principle behind conservation. The belief and respect to sacred gods of the monastery is the governing force of the forest. Like the forest, land and wildlife belong to the gods of the monastery, and nobody destroys these attributes. If wildlife and birds roam around the monastery, it is considered spiritually rich and sacred in Buddhism. The practice and pursuit of this concept will conserve and nurture the religious forest, thereby contributing to the biodiversity conservation goal of the Sherpa homeland, SNPBZ and the State. The names of monasteries with protected forests are in Table 2.2 together with information on CFUGs, areas, types of forest and governing body of monastery owned Pharak ICCA forests.

3.5.3 Community Forest and Grazing Commons

The third important land tenure is the community forest and grazing commons. There are nine community forest user groups (CFUGs) in the Pharak Buffer Zone. Land, other than privately and monastery owned, belongs to community forest users groups. The community forest management committee formed every five years is responsible for
the management and governance of the Pharak forest and grazing commons. Though
grazing commons management is not stipulated in the community forest constitutions and
operational plan, some of the CFUGs are taking charge of it. The community forest
governance is presented in detail in chapters 3, 4, 5 and 6.

Table 3.2: Monastery owned ICCA forests of Pharak

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name of monastery</th>
<th>CFUG</th>
<th>Area in ropani</th>
<th>Types of tree species</th>
<th>Governing body</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Utchecholing, Monzo</td>
<td>Himalaya</td>
<td>3</td>
<td>Blue pine</td>
<td>Private</td>
</tr>
<tr>
<td>2</td>
<td>Pemacholing, Rimijung</td>
<td>Kongde</td>
<td>24</td>
<td>Blue pine</td>
<td>Monastery management committee</td>
</tr>
<tr>
<td>3</td>
<td>Kemgun, Lukla</td>
<td>Lukla</td>
<td>2</td>
<td>Blue pine, silver fir</td>
<td>Monastery management committee</td>
</tr>
<tr>
<td>4</td>
<td>Rangdok Samdeling, Lomzo</td>
<td>Red Panda</td>
<td>3</td>
<td>Blue pine</td>
<td>Monastery management committee</td>
</tr>
<tr>
<td>5</td>
<td>Nangbuk, Karkee Changmylo</td>
<td>Mushey</td>
<td>210</td>
<td>Broad-leaf forest, blue pine</td>
<td>Monastery management committee</td>
</tr>
<tr>
<td>6</td>
<td>Sangacholing, Kyongma</td>
<td>Red Panda</td>
<td>4</td>
<td>Oak forest at Kyongma pakha</td>
<td>Monastery management committee</td>
</tr>
<tr>
<td></td>
<td>Total area</td>
<td></td>
<td>246</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.6 Conclusion

Historically, the Pharak region was rich in forest, non-timber forest products and
wildlife resources. The number of local population was low and forest resources were
abundant. The Pharak people practiced swidden agriculture, agropastoralism and trade
between Nepal and India before the advent of tourism in the 1960s. Until the decades of
the 1970s, Pharak was endowed by primary old-growth forests of blue pine, silver fir,
hemlock, tree juniper, birch, rhododendron, oak and many other broadleaved temperate
tree species. Because of the intact habitats, the area was rich in wildlife diversity, such as snow leopard, musk deer, common leopard, red panda, Himalayan tahr and many more. However, even prior to the 1960s, the Nangbuk, Kyomga and Lukla Sherpa communities had conserved their village forests for sustenance of biomass, continuation of arable farming practice, watershed protection and village scenery. These three community ICCA forests in the Pharak region did not undergo any transformation while rest of the forest was lost due to nationalization in 1957. Therefore, this indicates that conservation of forest initiated by the local indigenous peoples have survived longer than one that is governed and managed by the territorializing state.

Secondly, regarding forests, trees, wildlife, mountains, lakes and water sources as deities, spirits and divinity beliefs exist in the Pharak region as in the Khumbu region. But, there are no sacred forests in Pharak like lama’s forests that exist in Khumbu. However, Pharak is richer than Khumbu in terms of lu-tree diversity. Only in the village of Rimijung there are more than nine different lu-tree species. There are many villages like Monzo, Rimijung, Ghyuphete, Lhowa, Lukla and Nangbuk, where lu-tree diversity is present. Interestingly, the white beam tree of the Pemacholing monastery, which is associated with the history of the monastery, is spread throughout the Pharak region. Most lu-trees in the Pharak region are white beam species. Some of the lu inhabited trees in the Pharak region are believed to be more than five hundred years old, tallest and biggest in the region and probably in the world (Figure 2.1 & 2.2). Those lu-trees are stock of genetics, species and habitat diversity of different wildlife in the region. Nonetheless, it has to be scientifically proven that the seeds produced by those old trees can germinate and propagate robustly.
CHAPTER 4
FOREST DEPARTMENT ERA INCLUDING COMMUNITY FORESTS

This chapter presents the conceptual and historical background of private forest nationalization and intervention by the state through imposition of centralized forest governance system under the Department of Forests’ District Forest Office. It also looks at development of community forest user group in Nepal, and the author’s findings from field research on forest governance by government and indigenous Sherpa people in the Pharak region of the Sagarmatha National Park’s Buffer Zone in Nepal. The chapter examines the political ecology of the Pharak forests that went through different stages of changes due to government intervention, local resistance, tourism development, INGO assistance, political interference and local participation over the last five decades. It provides detailed accounts of forest governance under power centralized Department of Forest’s District Forest Office (DFO) era, and a contrasting scenario of forest decentralization through community forest user group system’s era. The chapter also gives an illustration of different changes and impacts that were experienced as an outcome of the policy interventions. Finally, it presents the profile of seven buffer zone CFUGs that the author have been engaged in while undertaking the case study in the Pharak region.

4.1 Concept and History of Community Forest in Nepal

Community forests in Nepal are historically the common-pool forest resources which indigenous peoples and local communities collectively owned, used and nurtured
for a long time, but the territorializing central government nationalized all forests of Nepal in 1957 (Dressler et al. 2010) with the enactment of Forest Act in 1961. Since Forest Preservation Act of 1967 implemented by the government could not be effectively enforced, and forest degradation became apparent (Springate-Baginski et al. 2007), the Ninth Forestry Conference held in Kathmandu in 1974 emphasized that forests would be in better condition under the control of local communities rather than the government. Following the decision, forests were re-categorized in 1978 as Panchayat Forest, Panchayat Protected Forest (Springate-Baginski, et al. 2007; Barnhart, 2011), Private Forest, Leasehold Forest, Religious Forest, and Government Forest (Ghate and Ghate, 2010). The objective behind this categorization of forests was to delegate responsibilities and rights of forest management to local political bodies. This policy provided local leaders and elites the opportunity to capture the forests and land in the Panchayat system (Springate-Baginski, et al. 2007). These behaviors seriously marginalized poor people and socially disadvantaged groups. It was only after preparation of the 25 year Forestry Sector Master Plan in 1989, that the final decision was taken to hand over forests to traditional forest users (Kanel, 2008 cited in Ghate and Ghate, 2010). The priority of the Master Plan was to set up Forest User Groups for the management, protection and sustainable utilization of the forests. 

Although the effort was there to implement community forest user group, the political change in 1990 undoubtedly helped to formulate and decentralize CFUGs as more democratic and independent institutions (Springate-Baginski, et al. 2007). The amendment to the Master Plan in 1993 led to the formulation of Forest Act of 1993 and Forest Regulations of 1995 (Barnhart, 2011). According to this Act, forests were
categorized into Community Forest, Religious Forest, Private Forest, Leasehold Forest, Government Managed Forest, and Protected Forest. The focus of this act was to decentralize, democratize and institutionalize the Community Forest User Group (CFUG) as an independent and self-governing entity with complete utilization and management rights to local communities (Springate-Baginskie, et al. 2007; Ghate & Ghate, 2010; Barnhart, 2011). However, this is difficult to generalize and conclude whether the above goal has been completely achieved throughout Nepal. This is because the situations of community forests in Nepal vary in Terai (low land), mid-hills, hills and mountains. Since Terai forests have high value timber, there are more government and political interference, elite domination, corruption and government control over CFUGs. As a result, the objectives of CFUGs are yet to be achieved in many places in the Terai region. In comparison, the CFUGs in mid-hills and hilly regions are more independent and autonomous since the timber there is less valued (Springate-Baginskie, et al. 2007). Even the government does not have much interest in the forests of mountains as they are of lesser value. However, timber market is changing rapidly at some of the protected areas in mountainous regions where tourism based economy is booming. Protected areas like Sagarmatha, Langtang National Park and Annapurna Conservation Area have high demand for local timber as many tourism infrastructure development projects take place at the local level. The majority of researches on Nepal’s community forests are focused on Terai and mid-hill forests. Fewer researches are conducted on mountain forests which are mostly under the buffer zone community forest user group system.

The legal provision made through the Forest Act of 1993 for the devolution of community forest management with the formation of CFUG has become the turning point
in Nepal’s forest resource conservation, management and governance history (Barnhart, 2011). Nepal government made this decision as the government controlled mechanism of forest management and governance policy and institution failed to achieve conservation goals and sustainable utilization during the Panchayat regime (Dressler et al. 2010). Deforestation and degradation of terai, hilly and mid-hill forests became apparent over the last five decades. Therefore, the community forest user group concept was brought forward to address the problem (Springate-Baginskie, et al. 2007, Dressler et al. 2010). Through CFUG’s provision, the government handovers forests to local users with formulation of a five-year operational plan and constitution. The operation of CFUG is guided by these two principal documents and is led by an executive committee and general assembly (Barnhart, 2011). The term of each executive committee, the operational plan and the constitution is five-years. With this decentralized forest governance arrangement, there are more than 15,500 CFUGs representing 8.5 million people with some 1.5 million hectare forest coverage (Khadka, 2012) out of 5.5 million hectare of total forest area in the country (Paudel, et al. 2010). 13,528 CFUGs, that is excluding Buffer Zone CFUGs, are affiliated with Nepal Federation of Community Forest User Group (FECOFUN), an umbrella networking organization of CFUGs in Nepal. FECOFUN is an organization that works for the social justice and rights of CFUGs in Nepal (Barnhart, 2011). However, FECOFUN is silent on community forest governance and indigenous peoples’ rights issues. The conditions of forest in Nepal have improved through voluntary conservation contributions by local communities since CFUG system was initiated (Dressler, et al. 2010). A study conducted by Ghate and Ghate about community forestry management in India and Nepal in 2010 indicated that
community forest user group institution in Nepal has more autonomy than that of India under the Joint Forest Management (JFM) governance (Springate-Baginskie, et al. 2007). Barnhart in 2011 defines that community forestry in Nepal is more than managing resource access; it is a forum for advocating and advancing tangible human rights.

4.2 Nationalization of Forest: Governance by Government

Late King Mahendra led autocratic monarchy regime nationalized Nepal’s forest under public domain through the Private Forest Nationalization Act of 1957 (Dressler, et al. 2010). The Forest Preservation Act of 1967 recognized village-protected forests. The Forest Policy of 1978 allowed national forests to be handed over to the care of villages to promote “panchayat forest” (Ferguson, et al. 2005, Barnhart, 2011). Nepal government established the District Forest Office (DFO) in Salleri, Solukhumbu district in 1971 and strengthened it in 1978, two years after the Sagarmatha National Park was declared in the Khumbu region (Stevens, 1993). Pharak Sherpas enjoyed autonomy over the use, management and governance of forest resources until the influence of DFO governance came in the Pharak region in 1978. It is most likely that the forest and land governance of the Pharak region was under the control of a local Sherpa agent known as Pembu (misar or talukdar in Nepali) who was appointed by the government. Pembu collected land revenues and delivered them to the government office at Okhaldunga (Furer-Haimendorf, 1964; Stevens 1993) between 1957 and 1978. After the establishment of the DFO office at Salleri, private forest and government forest were separated. Many of the Pharak people registered land fearing possible control of land, forests and access to forest resources by the government. The DFO started to control the Pharak forest from Salleri
from 1978. Stevens writes in *Claiming the Highground* that Nauje branch office
(Sahayak anchyaladhisht karyalaya) of the Sagarmatha Zone Office handled tree felling
permits in the Khumbu from 1965-1970. As Pharak and Khumbu were possibly under
the same management jurisdiction of the Ilaka (regional) office of Nauje from 1965 to
1970, it is probable that Pharak forest management and governance was under the Nauje
branch office. In 1970-71 the permit system of the Khumbu forest shifted to the Forest
Department office in Salleri (Stevens, 1993). A Ranger post was established at Lukla to
enforce DFO’ administrative authority and imposed rules over local communities at Ilaka
(a region comprising four VDCs) level in 1982. After DFO started to control the Pharak
forests, local people lost the sense of forest use rights, decision-making authority, and
ownership of their religiously and culturally interlinked ancient forests. The tree-cutting
permit system imposed by the DFO’s administration was the beginning of charging fees
to once freely available natural forest of the Pharak region. It was then that the Sherpas
realized that forest ownership and use rights had been dispossessed by the territorializing
Nepal government. Anyone who logged forests without securing logging permits from
the DFO would be criminalized and prosecuted. The person would be arrested, taken to
Salleri for court case in the DFO. District Forest Officer had the authority to rule any
forest related cases, and he had the legitimacy to rule as one bench special judge. Anyone
violating forest rules would be fined, even shot below the waist and could be prosecuted
through jail sentencing as per the Forest Act of 1967 ((Springate-Baginskie, *et al.* 2007).

In the process of securing logging permits, Pharak Sherpas had to walk to the
district headquarters and spend at least one week traveling. In addition, they had to face
bureaucratic hassle that DFO staff would create and had to pay some extra benefits to
process the logging permits. The DFO Rangers or administrative staff would refuse to
walk up to Pharak for stamping\(^{17}\) (tancha in Nepali) trees unless their travel allowances
and tancha puja (stamp worship traditionally done by Hindus) fees were met by the party.
The majority of the interviewees from Lukla to Thumbuk had the same story in dealing
with the DFO authority. Someone who has logging permission for 100 cubic feet of
timber would usually log more than 200 cubic feet by paying some extra money or kinds
to the DFO staffs. It became a regular practice to pay the DFO Ranger or forest guards a
bribe, and in return they would seal several more trees after negotiation with the logging
party. DFO staffs were also insensitive in considering the natural and cultural
environments of the forests while sealing trees. They used to give permission to log
nearby water sources, closed by main trail, special habitats, etc. DFO staff would rarely
come to monitor the logging sites afterwards. This practice prevailed from the 1970s to
late 1990s. The DFO governance, however, became inactive after the first democratic
movement and during interim government period in 1991and had less influence on
Pharak forests afterwards (Sherpa, 2000). The Pharak Sherpa who used to enjoy inherited
autonomy over forest resource use had to pay logging tax to the central government
through DFO. The timber royalty would go to the treasury of the then central
government. However, the bribed money went into the pockets of the staff and both the
Pharak people and the government became the losers of the centralized and top-down
forest governance system. This practice of dispossessing Pharak forest by government
authority alienated the Pharak people from their ancestral forest resources for at least
three decades, that is, throughout the period of Panchayat regime.
The majority of Pharak’s blue pine (*Pinus wallichiana*), silver fir (*Abies spectabilis*), hemlock (*Tsuga dumosa*), oak (*Quercus semecarpefolia*) and rhododendron (*Rhododendron arboreum*) forests were degraded during the District Forest Office’s governance tenure. This tenure also coincided with the establishment of Sagarmatha National Park, imposing strict forest protection rules and rapid development of tourism in the Khumbu region. Due to the restriction imposed by SNP in the Khumbu forest use, the pressure of timber, firewood, and charcoal production shifted down to Pharak forests since the 1970s (Stevens, 1993, 2003, WWF 1995, Sherpa, 2000). Some of the large scale construction projects in the Khumbu, such as building of SNP offices, army posts, Everest View Hotel, Thame micro-hydro project, Tengboche monastery reconstruction and many private hotels and lodges construction throughout the Khumbu valley extracted timber from Pharak forests between the 1970s and late 1990s (Sherpa, 2000). Timber produced out of ancient old-growth blue pine, hemlock and silver fir from Lhowa to Monzo were exported to Nauje in the SNP. Lukla in the Pharak region became the second timber market after Nauje (Sherpa, 2000). Timber of Tate, Sewangma, Lomzo and Buwa were supplied to Lukla and is still done. Logging by outsiders in Pharak took place rampanty and this peaked during the interim government’s term in 1991. Contractors and loggers from different parts of Solukhumbu and neighboring districts were active in the process of logging Pharak’s forests. It became like the “California gold rush” of 1848–1855 in the USA. After the local people of Monzo and Thumbuk formed a resistance group and protested against logging by outsiders and firewood collection by Nauje people, the situation became tense. As a result, several conflicts developed among Monzo
residents, loggers and Nauje firewood collectors and the situation got better gradually after almost three years of resistance and struggle between 1990 and 1993.

Unfortunately, the Pharak locals learned about logging and timber trade from outsiders, and they did the same for almost a decade in the 1990s. The majority of Pharak elites from Yulngying to Thumbuk started to fell-trees and sell to Nauje market during the decade. Though conservation efforts were made by environmental NGOs like Sagarmatha Pollution Control Committee (SPCC)\textsuperscript{18} and World Wildlife Fund (WWF), logging by local people under the political support of local Nepali Congress political leaders expanded the timber trade. The loss of forest resources and habitats became apparent in the late 1990s. Anyone lobbying for conservation of forests, wildlife and plantation of trees were misinterpreted and taken as Sagarmatha National Park’s promoter and humiliated as enemy of the Pharak Sherpa community. The conflict between the minority local conservationists and majority local Pharak people prevailed for almost a decade. The local loggers were also politically protected by the Member of Parliament of Solukhumbu district. This was done in return of votes during the election.

Oak (**Quercus semecarpfolio**) is a slow-growing species highly preferred for winter fodder, firewood, and high quality leaf litter in Pharak. However, contractors logged most of the oak forests for production of charcoal, and supplied to Khumbu in the 1970s and 1980s. Oak forest of Monzo, Benkar, Chengma, Phakdingma and Lukla were predominantly cut for charcoal production. Loggers however could not fell the Kyongma ICCA oak forest, so it remains as the biggest oak forest in the Pharak and Khumbu regions. Charcoal produced out of oak timber from the Pharak forests were used for room heaters mostly by offices and by a few well-off Khumbu families (Sherpa, 2000).
Oak is a hardwood and is considered as good firewood because it gives long lasting heat.

The fire in oak charcoal can last for a whole night if it is covered by ash and that would save money to buy matches in the old days. Its leaf litter is rich in nutrients and makes good compost fertilizer when mixed with cattle manure. It also controls worms and gives better potato yields.

Most of the rhododendron (*Rhododendron arboreum*) forests in the Pharak region were also degraded during DFO governance era. The red rhododendron is the national flower of Nepal and its logging is not permitted legally. However, DFO authority would rarely monitor felling of rhododendron trees, which were cut for firewood. Therefore, anyone wanting to have firewood could cut rhododendron forests without seeking official permit from the DFO. As a result, the majority of rhododendron forests in the Pharak region disappeared between 1970 and 2000. Apart from the colorful flower it bears, rhododendron wood makes excellent fire too. It gives good heat, produces less smoke and can last longer than coniferous wood fuel but not as long as oak. Its leaf litter is also considered good for compost fertilizer but it comes after oak leaf in terms of quality.

Although the Lukla Range post was established around 1982, DFO rangers and forest guards rarely stayed there. Most of the time, the office was attended by just two or three forest guards. A Brahmin man working as an administrative assistant who married a Sherpa lady from Rimijung was very active. He later lost his job due to a corruption charge. Whenever he came to seal trees, he would demand cash, kinds, expensive drinks, chicken dishes and high end treatment. Demanding freshly slaughtered chicken meat at Sherpa house is against Sherpa beliefs and Buddhism and violates religious and cultural values. Because of dispossession, corruption, poor governance system and loss of local
people’s forest use rights, the majority of Pharak’s old-growth (ancient) primary forests were badly degraded during the DFO governance Era. As a result, forest products like timber, firewood, fodder and leaf litter were in shortage throughout the Pharak region. It almost affected the agriculture farming practice due to shortage of leaf-litter based compost fertilizer. The condition of Pharak forests was in a poor state with a minimum of 90 percent forests degraded when DFO handed over them to the local community in 1998.

4.3 Grazing Commons

Grazing commons form an important part of the ecosystem as they serve as grazing sites and habitats for wildlife and livestock. The government of Nepal nationalized grazing commons in 1964 (Stevens, 1993). However, there was no specific government agency to control this land. The District Forest Office had no concern for the grazing commons and its management. Therefore, the DFO governance over forest resource did not have any noticeable effect on grazing and livestock farming practices of Pharak Sherpas.

4.4 Decentralization of Forest Governance

4.4.1 CFUG Governance Era: Governance by Local Community and Indigenous Peoples

The Pharak Sherpa community realizes that District Forest Office on behalf of the government of Nepal handed back the Pharak forests through establishment of community forest user group system only after they had completely destroyed the ancient, old-growth primary forests. Although the locally motivated conservation
movement started from the park border of Monzo in the 1990s, the formal establishment of the community forest user group (CFUG) in the Pharak region took place only after promulgation of its Act in 1993 (Sherpa, 2000). Chaurikharka became one of the first Village Development Committees in the Solukhumbu district to establish CFUGs under the provision of the Forest Act of 1993. The first Pemacholing CFUG was officially formed at Phakding in 1993. For forests of four wards, the office inaugural ceremony was attended by the District Forest Officer Devendra Raj Kandel, local residents of ward number 1 (Monzo, Phyangorok, Chumoa and Thumbuk villages), 6 (Lhowa and Yulngying villages), 5 (Rimijung, Phakding and Toktok villages) and 9 (Gyuphete, Chuserma and Chermadingma villages).

**Figure 4.1: Community Forest User Groups of Pharak between 1993 and 1997**

The Danfe CFUG was formed at the same time with Pemacholing and inaugurated right after Pemacholing in 1993. Danfe covered the area of wards 2, 3, 4, 7 and 8 of Chaurikharka VDC (Figure 3.1) and was relatively bigger than Pemacholing CFUG. It also covered more population density. However, in the process of institutionalization,
Pemacholing became more active and could generate more than Rs. 1.65 million within two years’ term from issuance of logging permits. Pemacholing also established a forest nursery at Toktok in 1994, but did not last more than two years. The DFO sealed up their bank account and books of accounts of the Pemacholing CFUG on allegation of corruption. Pemacholing was defunct for more than two years and illegal logging by local users became a common practice (Sherpa, 2000).

In comparison to Pemacholing, Danfe had relatively less felling of forest. The timber market of Lukla was not as big as Nauje. However, in terms of institutionalization and mainstreaming of the community forest concept and governance in the village level, it could not progress as expected. The power of the group remained limited in the hands of elite leaders and institutionalization of the community forest and mobilization of community remained largely unaddressed. The chairpersons would neither resign nor call regular meetings or mobilize the entire communities of both CFUGs. The elites captured newly born Pemacholing and Danfe CFUGs, which became paralyzed and monolithic for couple of years. This situation disappointed the Danfe forest users for almost a decade (1993-2002).

4.5 WWF Nepal Program’s Assistance

The World Wildlife Fund Nepal Program with the field coordination of Sagarmatha Pollution Control Committee prepared a five year Pharak Community Forestry Project proposal in 1995. A team of three members- Kenneth Bauer, an American Graduate Fellow, Kuldip Poudel, a Forestry Consultant, and I working as the Executive Director of SPCC at that time, as the local Coordinator spent six weeks in the
Pharak region consulting local communities and surveying the degraded forest sites. With the support of Nepal’s WWF, the immediate Country Representative Mingma Norbu Sherpa (Khunde) managed to secure funding from WWF-UK for the first two years. The funding was succeeded by Mr. Henrick Schure, an individual donor from Netherlands, with a grant assistance of 500,000 US dollars for ten years. The project was implemented in the name of Sagarmatha Community Agro-Forestry Project (SCAFP) in the Pharak region from 1996 to 2005.

Pemacholing CFUG was reformed with the assistance of SCAFIP and DFO in 1998. The local people of ward number 1, 5, 6 and 9 decided to form separate user groups at the ward level, so that the users would have stronger ownership of the forest, take stronger responsibility and manage effectively. Himalaya, Kongde, Dudhkunda and Pemacholing CFUGs were formed at ward number 1, 5, 6 and 9 as the management and governance of forest institutions respectively in 1998 (Figure 4.2).

**Figure 4.2: Community Forest User Groups of Pharak before 2002**
SCAFP played an active role to generate conservation awareness at the grassroots level in the Pharak region. The local community, with enhanced conservation awareness, requested the government of Nepal to declare the buffer zone of the Sagarmatha National Park and to include the Pharak region and the enclave settlement of the Khumbu region in the buffer zone in January 2002. The formation of the Buffer Zone User Groups and Buffer Zone Management Committee under the Buffer Zone Management Regulation of 1996 motivated the Chaurikharka locals to reorganize their community forest user groups as well. Ngima Sherpa (Ang Kanchi), community mobilization officer of SCAFIP, facilitated to call a general meeting of the Danfe CFUG in 2002, which had remained at a standstill for at least nine years. The general public decided to split the non-functional and monolithic Danfe CFUG and form separate CFUGs at the ward level in 2002. In the process, five CFUGs namely Red Panda, Sherpa, Mushey, Tong and Lukla CFUGs were formed at wards 3, 4, 7 and 8 respectively (Figure3.3). Sherpa CFUG at Buwa and Mushey CFUG at Nangbuk villages are both in ward number 4. Ward number 2 of Dungde village (Chaurikharka) does not have a community forest; however in the past, people of Dungde used to collect its forest products from the forests of Tate and Sewangma. The community of Dungde, who at first opposed to forming of the CFUG at the ward level, came to an agreement after their access right to their traditional forest was ensured in Tong CFUG.

SCAFP launched an integrated conservation and development (ICDP) type of program activities in the Pharak region since 1996. Though the project became controversial in its early phase due to attitudinal factors and vested interest of CFUG chairpersons of Danfe and Pemacholing CFUGs from 1996 until the millennium’s eve on
December 31, 1999, most of its program activities were appreciated and made a positive change in the Pharak forest governance history and ecological improvement. WWF almost withdrew the SCAFP after a fight broke out between the SCAFP agroforester and the Danfe CFUG chairperson at the Millennium Eve party at Lukla. Many of the timber loggers took the advantage of the conflict and destroyed forests in Danfe CFUG. I (the author) was commissioned by WWF Nepal Program to consult and obtain the Pharak community’s view over the project. I spent one week collecting opinions of the local people from Lukla to Thumbuk, and upon request of the Pharak locals, the project was retained and later established its field office at Phakding. The project supported and trained CFUGs to establish ten nurseries and generated more than 700,000 seedlings over the period of ten years. The term of each nursery varied from three to ten years and produced mostly blue pine, silver fir, hemlock and non native Pinus patula\(^2\) (Mexican weeping pine) species. Pemacholing, Nangbuk and Lukla monasteries managed three nurseries in support of SCAFP.

### 3.6 Pharak Community Forests and Users Groups Today

There are nine buffer zone community forest user groups (BZCFUGs) working in the Pharak region since 2003. The total area covered by these community forests is 22,067.60 hectares. The BZCFUGs are comprised of 923 households and 2,917 users. The name, ward number, area, total household numbers, total population and forest types of all of the nine BZCFUGs are provided in (Table 3.1). There were only five CFUGs until buffer zone was declared in 2002. The former Danfe CFUG, previously registered in the District Forest Office (DFO), split into five different CFUGs after DFO’s overseeing
role was transferred to Sagarmatha National Park in 2003 (Figure 3.3). The size, population, ethnicity and vegetation of each of the nine CFUGs are different in many ways and similar in some cases (Table 3.1). The Pemacholing CFUG is the biggest CFUG with an area of more than 8,384.8 hectares, which includes rugged terrains, mountains and grasslands. In 1995, SCAF identified five types of forests in 16 different forest patches extended over 3,367 hectares in the Pharak region. The major forest types in Pharak are blue pine, oak, oak and rhododendron mixed forests, silver fir and hemlock mixed forests and oak, rhododendron, silver fir mixed forests. SCAF recorded six blue pine forests followed by an oak and a rhododendron and silver fir mixed forests. There is only one homogenous oak forest extended over an area of 101 hectares in Kyangma pakha (WWF, 1995), the Kyangma ICCA forest.

Figure 4.3: Community Forest User Groups of SNPBZ after 2002
The Lukla village has the highest populations, with 1,204 people, among the nine CFUGs with ethnically diverse group of peoples consisting of Sherpa, Tamang, Rai, Magar, Nepali, Biswokarma and others. The total population of permanent and temporary forest users of Lukla CFUG listed in its first constitution of 2006 is 695 (338 households) and 509 (126 households) respectively. Five CFUGs, previously registered in the District Forest Office (DFO), managed and governed under the Forest Act of 1993, were handed over to SNP in 2003 as the Pharak region became the buffer zone of SNP in 2002. Danfe CFUG split in 2002 and formed four new CFUGs in 2003. The Lukla CFUG was formed only in 2006 due to the Maoist insurgency. Since then all of the nine CFUGs were managed and governed under the Buffer Zone Regulation of 1996 and became buffer zone community forest user group (BZCFUG). The profiles of seven BZCFUGs are briefly presented in the section 3.6.1.

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name of BZCFUGs</th>
<th>Ward No.</th>
<th>Area of CFUG (hectares)</th>
<th>Total HHs</th>
<th>Total Population</th>
<th>Forest Types</th>
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<tr>
<td>1</td>
<td>Himalaya</td>
<td>1</td>
<td>5153.5</td>
<td>86</td>
<td>389</td>
<td>Fir, spruce, bamboo, blue pine</td>
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<td>2</td>
<td>Red Panda</td>
<td>3</td>
<td>300</td>
<td>75</td>
<td>289</td>
<td>Silver fir, rhododendron, birch, oak, bamboo</td>
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<td>3</td>
<td>Sherpa</td>
<td>4</td>
<td>275</td>
<td>38</td>
<td>161</td>
<td>Silver fir, blue pine, rhododendron, oak, bamboo</td>
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<td>4</td>
<td>Mushey</td>
<td>4</td>
<td>225</td>
<td>51</td>
<td>245</td>
<td>Silver fir, blue pine, rhododendron, angire</td>
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<td>5</td>
<td>Kongde</td>
<td>5</td>
<td>2089.2</td>
<td>110</td>
<td>456</td>
<td>Blue pine, silver fir, angire, mayal, birch, bamboo</td>
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<tr>
<td>6</td>
<td>Dudhkunda</td>
<td>6</td>
<td>4850.1</td>
<td>40</td>
<td>208</td>
<td>Oak, rhododendron, blue pine, birch, bulu, mayal</td>
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<tr>
<td>7</td>
<td>Tong</td>
<td>2, 7</td>
<td>310</td>
<td>80</td>
<td>254</td>
<td>Hemlock, silver fir, blue pine, mayal, angire</td>
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<tr>
<td>8</td>
<td>Lukla</td>
<td>8</td>
<td>500</td>
<td>277</td>
<td>1,205</td>
<td>Silver fir, hemlock, rhododendron, oak,</td>
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<td></td>
<td>Pemacholing</td>
<td>9</td>
<td>8364.8</td>
<td>42</td>
<td>177</td>
<td>bamboo</td>
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<tr>
<td>Total</td>
<td>22,067.6</td>
<td>799</td>
<td>3,384</td>
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4.6.1 Himalaya BZCFUG

The Himalaya Buffer Zone Community Forest User Group is located within the boundaries of Thamserku, Kyasharwa Mountains and Makalu Barun National Park’s border in the east, Kongde Peak or the border of Kongde CFUG in the west. And the border of SNP in the north and small gorge located west of Benkar to the pointed rock or the border of Kongde CFUG in the south. The Himalaya CFUG is adjacent to the Sagarmatha National Park boundary at Monzo in ward number 1 of Chaurikharka VDC in the Pharak region. Thumbuk and Tawak villages of Chaurikharka VDC are located inside the park boundary. People of these villages also own land and houses in Monzo and other villages. From the forest management, use and governance perspective, they are also the Himalaya community forest users and decision-makers. Other villages of Himalaya CFUG include Chumoa and Benkar in the south of Monzo. The ethnicity, total number of household and their percentage in the Himalaya CFUG in 1998 and 2004 are provided in the Appendix3 (Tables 3.2.1 and 3.2.2).

The Himalaya CFUG has a total of 70 households as forest users in 1998. Sherpa, Rai, Tamang, Magar and Chhetri make up the ethnic composition. Gender segregated data and population of individual ethnicity of the users are not available in the constitution of 1998. The total number of households in 2004 reached to 86, an increase
of 16 households, within a five-year period. The number of non-local Sherpa immigrant households increased to 30 in 2004 from 11 in 1998. The population of forest users also increased to 389 in 2004 from 310 in 1998 (increase of 25 percent). The male and female population is almost the same; the number of male exceeds just by nine. There were no Tamang residents in the Himalaya CFUG area before the 1990s. The Tamangs became the local residents in the 1990s when Nepal had the first interim government. Tamang people from the south of the districts came to Pharak region for tree-cutting as the DFO and other government agencies were inactive and local communities had no control over the forest. They came to the Pharak area for seasonal logging jobs; they logged timber during the day and mingled with local Sherpa girls at night. Later, they got married and settled in their wives’ property and became the residents of Himalaya CFUG. Rai and other ethnic people became local residents after the land survey (napi) in 1994. The then acting Chaurikharka VDC chairperson sold the land of Laridingma at Chumoa to Rais. Since then the Rai community has settled in the Himalaya CFUG area.

Figure 4.4: Firewood stocked by an immigrant (left), secondary growth community and private forests in the Himalaya CFUG (right) in June 2011
4.6.2 Kongde BZCFUG

Rimijung, Toktok, Ngambuteng and Ngambu Wog, Zomphute, Rangdingma and Phakding are the major villages in Kongde BZCFUG. Kongde BZCFUG’s area extends to the boundaries of Risengdanda in the east, Dungmajo Peak in the west, the border of Himalaya CFUG in the north and the border of Dudhkunda and Pemacholing CFUGs in the south. The total area of the CFUG is 2,049 hectares. Blue pine (Pinus wallichiana), silver fir (Abies spectabilis), hemlock (Tsuga dumosa), juniper (Juniperus recurva), rhododendron (Rhododendron arboreum), oak (Quercus semecarpefolia) and Silver birch (Betula utilis) are the major tree species. Himalayan black bear (Selenarctos thibetanus), red panda (Ailurus fulgen), snow leopard (Uncia uncia), common leopard (Panthera pardus), musk deer (Moschus chrysogaster), tahr (Hemitragus jemlahicus), jharal, ghoral, jackal (Cuon alpinus) are the major mammal species found in the Kongde CFUG. Many birds like danphe (impeyan pheasant), munal, kaliz, owl and eagle are found in this CFUG.

It has a total of 456 forest users in 110 households in 2004. The populations of women and men users were 229 and 227 respectively in 2060 B.S. (2004 A.D). Sherpa people are the long established settlers, Biswokarma are at least four generations old in Rimijung and rest of the ethnic groups as listed in the Appendix 3 (Table 3.3) are recent immigrants. Almost half of the households were non-Sherpa in 2004. There are 45 households of immigrant Rai, Tamang, Magar, Chetri, and Pariyar communities with total population of 159. Toktok village alone has 17 households of immigrant families among which 12 households are Tamang people from Lokhim VDC located in the south of Solukhumbu district, and the remaining 5 households are Rai people. The
Biswokarmas are occupationally of the craftsmen caste that traditionally make and repair household utensils and agricultural implements. They follow Hinduism and celebrate Dashain and Tihar festivals. They are also considered as dalit (so called “untouchable”) in the Nepalese Hindu caste system. Their profession has been changing due to modernization and tourism over the last thirty years. The older generations, who follow the blacksmith profession, have died and younger generations are hardly pursuing the traditional occupation. There is only one family who is continuing the blacksmith profession at Rimijung and his elder brother and uncle work at Lukla and Nangbuk. Although they are originally from Rimijung and belonged to one family, they have temporarily moved to those villages for more than thirty years. The blacksmiths produce charcoal from live branches of blue pine and there is only one family in the Rimijung who serves from Lhowa to Thumbuk area. The local people at Rimijung provide their own charcoal assembled at their homes for repairing household implements. The blacksmith community appreciates the concept of community forest system as it has not affected their profession in general. They are also represented in the executive board of Kongde CFUG. However, since they are the minority and disadvantaged community, they cannot put their agenda strongly and influence the decision significantly. The ethnicity, total number of households, their percentage, male and female population of the Kongde CFUG in 2004 is provided in the Appendix3 (Table 3.3).

From production and marketing perspective of timber, agricultural and agropastoral products, the Kongde CFUG is located at a very important geographical region due to its proximity to SNP (Khumbu), and some of the major Pharak villages including Lukla, Phakding and Rimijung. The Pemacholing monastery located at
Rimijung is historically one of the oldest monasteries of the Khumbu, Pharak and Shorong regions. The establishment history of the monastery dates back to the sixteenth century during Lama Sanga Dorje, Ralpa Dorje and Khenpa Dorje’s period (Stevens, 1993; Wangmo, 2005). The monastery is believed to be built by Khenpa Dorje, the youngest brother of Sanga Dorje in Rimijung (Furer-Haimendorf, 1964; Sherpa, 2008). The monastery is located under a white beam tree where the Thuwi-ku (Buddha idol), the main god of the monastery is enshrined. The historical text of Pemacholing monastery interprets that once people from Tibet attempted to take the idol to Tibet, but to their surprise the idol, which is not even a foot tall, became heavier and heavier on their way. Ultimately, even seven strong men could not carry it. The weather became very severe, and snow storm hit hard, and the idol spoke out that his residence is not towards Tibet, but rather at a place called Pemacholing, under a white beam tree in the south of Khumbu. So the idol was brought back and established in the Pemacholing monastery about four hundred years ago. Today, the Pemacholing monastery stands as the major religious, cultural and historical institution in the Pharak region.

**Figure 4.5: Immigrants building house at Tok Tok (left) and degraded forest of Kongde CFUG (right)**

![Immigrants building house at Tok Tok (left) and degraded forest of Kongde CFUG (right)]
Figure 4.6: Annual General Meeting (left) and the newly elected executive committee of the Kongde CFUG in July 2011

4.6.3 Pemacholing BZCFUG

The Pemacholing Buffer Zone Community Forest User Group lies in ward number nine of Chaurikharka Village Development Committee in the Pharak buffer zone. Ghyuphete, Chuserma and Chermadingna are the major villages of Pemacholing CFUG. The four side borders of the Pemacholing CFUG is Pamu top and Kongde CFUG in the east, the western part of Chaurikharka VDC or the east of Ramechhap district in the west, the border of Kongde CFUG and SNP in the north, and the border of Dudhkunda CFUG, or the western border of Chaurikharka VDC along with Lumding ridge, and Chutawa gorge in the south. The total area of Pemacholing is 8,364.8 hectares. Pemacholing is the largest CFUG among all nine Chaurikharka Buffer Zone CFUGs. The physiography of Pemacholing CFUG contains 7,206.7 hectares of mountains and boulders, 664.80 hectares of grassland and shrubland, and 380 hectares of forest conservation area, of which 113.10 hectares is the productive forest area. The major species of vegetation include rhododendron, blue pine, silver fir, hemlock, oak, birch and angeri as presented in Table 3.5. The District Forest Office handed over governance of the forest to Pemacholing CFUG in the fiscal year 2054/55 (1997/8).
Table 4.2: Physiographic composition of Pemacholing CFUG

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Details of physiography</th>
<th>Area in hectare</th>
<th>Major species of vegetation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mountains and boulders</td>
<td>7,206.70</td>
<td>Grass and spruce</td>
</tr>
<tr>
<td>2.</td>
<td>Grassland and shrubland</td>
<td>664.80</td>
<td>Grass, spruce</td>
</tr>
<tr>
<td>3.</td>
<td>Forest conservation area</td>
<td>380.20</td>
<td>Bamboo, silver fir, hemlock, oak, rhododendron, birch, miyal, blue pine</td>
</tr>
<tr>
<td>4.</td>
<td>Productive forest area</td>
<td>113.10</td>
<td>Rhododendron, blue pine, oak, miyal, angeri</td>
</tr>
</tbody>
</table>

Total 8364.80

Source: Draft Pemacholing CFUG Operational Plan (2068)2011.

Sherpa, Biswokarma, Rai and Tamang are the ethnic group composition of this CFUG. The total population of the CFUG is 192 with 97 males and 95 females.

Biswokarmas (blacksmiths) have settled in Ghyuphete for at least four generations. Rai and Tamang peoples are recent migrants (Appendix 3, Table 3.4). The traditional craftsmanship profession of the local blacksmiths has become moribund. The younger generations have given up the profession as they do not see much scope in that. The modern materials, technology, transport system and market have replaced the local traditional hand made products.

Pemacholing CFUG lies off the Everest trail trekking route. The user group members rely entirely on agriculture and trekking work for their subsistence. Tourism is the secondary business for them. Because of being off the trekking route, the majority of the Pemacholing users are indirect beneficiaries of Khumbu tourism business. Though there are many issues which are common among other CFUGs, in totality, there are lesser issues in this CFUG.
4.6.4 Dudhkunda BZCFUG

The Dudhkunda Buffer Zone Community Forest User Group lies in ward number six of Chaurikharka VDC of Solukhumbu district. The CFUG is located to the west of Kusum Khangkaru Peak and Makalu Barun National Park, east of Mt. Karyalung and the border of Chaurikharka VDC, south of the Chutawa-khola along with Miktunthanga and Lumding ridge, and north of Thadokoshi khola along with Kamsewa khola to the border of Chaurikharka VDC (Figure 3.9). The total area of the Dudhkunda CFUG is 4,850.10 hectares. The physiographic composition of the Dudhkunda CFUG is diverse as shown in (Table 3.7).
Table 4.3: Physiographic composition of Dudhkunda CFUG

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Details of physiography</th>
<th>Area in hectare</th>
<th>Major species of vegetation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mountains and boulders</td>
<td>3,018.00</td>
<td>Grass and spruce</td>
</tr>
<tr>
<td>2.</td>
<td>Grassland and shrubland</td>
<td>145.60</td>
<td>Grass, spruce</td>
</tr>
<tr>
<td>3.</td>
<td>Red panda conservation area</td>
<td>1,004.00</td>
<td>Bamboo, silver fir, hemlock, blue pine, oak, rhododendron</td>
</tr>
<tr>
<td>4.</td>
<td>Forest conservation area</td>
<td>554.40</td>
<td>Rhododendron, blue pine, birch</td>
</tr>
<tr>
<td>5.</td>
<td>Productive forest area</td>
<td>85.20</td>
<td>Tree juniper, blue pine, rhododendron</td>
</tr>
<tr>
<td>6.</td>
<td>Bamboo collection area</td>
<td>31.50</td>
<td>Bamboo, blue pine, rhododendron</td>
</tr>
<tr>
<td>7.</td>
<td>Plantation area</td>
<td>8.80</td>
<td>Blue pine</td>
</tr>
<tr>
<td>8.</td>
<td>Open area</td>
<td>2.60</td>
<td>Blue pine</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>4,850.10</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Dudhkunda CFUG Operational Plan (2068)2011.*

Figure 4.9: Newly elected executive committee of Dudhkunda CFUG (left) and their community forest (right) in 2011

The table presents characteristics of land use, management and governance practice along with diversity of vegetation species in the Dudhkunda CFUG. Dudhkunda is the only CFUG which has two different conservation areas within a CFUG. The Kusum khola river basin is the red panda conservation area and the forest between Kusum khola and Chutawa khola is the conservation area (*kyakshing*). As Dudhkunda has allocated majority of its forest area for conservation, the pressure created by the demand of forest resource has been felt in the neighboring Pemacholing CFUG as mentioned earlier.
Sherpas are the dominant users of Dudhkunda CFUG (Appendix 3, Table 3.6). The majority of the population relies on agriculture and tourism for their livelihoods. Yulngying, Lhowa and Tega are the main villages of the CFUG. Dudhkunda CFUG is located in the middle of Chaurikharka VDC or Pharak region. The timber of Lhowa and Yulngying was sold to Nauje and Lukla during district forest office governance era, particularly during Panchayat regime in between the 1970s and 1990s. The forest of Dudhkunda was severely degraded due to indiscriminate logging by contractors and outsiders during Panchayat regime. People of Lomzo and Lukla used to log in the Dudhkunda CFUG during DFO governance era before the CFUG was formed. The CFUG also has sacred site like foot print of Lama Sangwa Dorje at Langmaru, Lhowa. There is the inscription of ‘Om Mani Padme Hum’ Buddhist prayer mantra on the rock as well. This is supposed to be a sacred site in Buddhist tradition, but surprisingly, it has not
been promoted as a sacred site. Had it been conserved as a sacred site, the forest around the Lama Sangwa Dorjee’s footprint would be protected. In addition, Yulngying village is also special as Ter (hidden treasure of Guru Rinpoche) unveiled by Lama Sangwa Dorjee is said to be retained in Lama Rinji’s house in the Dudhkunda CFUG.

4.6.5 Lukla BZCFUG

Lukla Buffer Zone Community Forest User Group is only six years old. It was first formed only in 2006 after the split of previous Danfe CFUG in 2002. Lukla community could not form the CFUG for four years in absence of an interested leader and the threat of Maoist insurgency. The local situation was tense between 2002 and 2006 and security force had imposed state of emergency. Since elder generations of local Sherpa leaders have either migrated to Kathmandu or retired from their tenures from CFUG management and governance, the younger generations of Sherpa and Tamang youths are leading the Lukla CFUG now. The chairperson of Lukla CFUG is a Tamang youth. More than twenty-three households of Tamang people have resided in the western part of Lukla since the 1970s (Tables 3.8 and 3.9). Recently, Pasang Gyalzen Sherpa (Apa) sold his land to Biru Man Rai and he split and resold it to other thirteen Rai households. The Rai community has also bought a piece of land for their crematorium.

Although Sherpa youths are trying to take the leadership position, the CFUG has to be inclusive in order to represent the recently migrated ethnic groups. Those who purchased land and house at Lukla over the last decades are considered as permanent residents by the prevailing law of the country. They can become user members and also take leadership positions though they are culturally different and if the community
nominated them. Unlike other CFUGs, Lukla CFUG has not yet developed the rules of registering immigrant as a forest use member. As a result, Lukla’s original Sherpa as well as in-migrated Sherpa resident community have no particular control mechanism to protect the local forest and make decisions over their resources.

Table 4.4: Ethnicity and population of permanent resident of Lukla CFUG

<table>
<thead>
<tr>
<th>SN</th>
<th>Ethnicity</th>
<th>Total HH</th>
<th>Percentage of HH</th>
<th>Population</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Woman</td>
<td>Male</td>
</tr>
<tr>
<td>1</td>
<td>Sherpa</td>
<td>114</td>
<td>75</td>
<td>265</td>
<td>262</td>
</tr>
<tr>
<td>2</td>
<td>Tamang</td>
<td>23</td>
<td>15.13</td>
<td>60</td>
<td>52</td>
</tr>
<tr>
<td>3</td>
<td>Rai</td>
<td>5</td>
<td>3.29</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>Nepali</td>
<td>4</td>
<td>2.63</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Magar</td>
<td>2</td>
<td>1.32</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Bhujel</td>
<td>1</td>
<td>0.66</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Brahmin</td>
<td>1</td>
<td>0.66</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Biswokarma</td>
<td>2</td>
<td>1.32</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>152</strong></td>
<td><strong>100</strong></td>
<td><strong>365</strong></td>
<td><strong>342</strong></td>
<td><strong>707</strong></td>
</tr>
</tbody>
</table>

*Primary data source: Lukla CFUG Constitution 2006.*

The cadres of Nepal Communist Party (Maoist), Young Communist League (YCL) forcibly included non-local resident in the executive committee of Lukla CFUG a few years back. To some extent this affected the effectiveness and regular functioning of the Lukla CFUG. It became a political exertion, unlawful interference and invasion over the locally protected and managed forest. This forced political pressure dispossessed the local Sherpa people from participating in the decision-making process on their ancestrally inherited forest resources. The political situation at that time was abnormal as the entire country was just going through political transformation and the armed Maoist rebels had just laid down their weapons. The local people could not resist the pressure. Nevertheless, now the situation has changed and the Maoist arms have been handed over to the Nepal
government. Maoist party has become a democratic political party and is no more an armed rebel.

Table 4.5: Ethnicity and immigrant (temporary resident) population of Lukla CFUG

<table>
<thead>
<tr>
<th>SN</th>
<th>Ethnicity</th>
<th>Total HH</th>
<th>Percentage of HH</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Woman</td>
</tr>
<tr>
<td>1</td>
<td>Sherpa</td>
<td>34</td>
<td>27</td>
<td>62</td>
</tr>
<tr>
<td>2</td>
<td>Tamang</td>
<td>32</td>
<td>25.40</td>
<td>68</td>
</tr>
<tr>
<td>3</td>
<td>Rai</td>
<td>31</td>
<td>24.60</td>
<td>62</td>
</tr>
<tr>
<td>4</td>
<td>Magar</td>
<td>11</td>
<td>8.73</td>
<td>18</td>
</tr>
<tr>
<td>5</td>
<td>Chhetri &amp; Brahmin</td>
<td>9</td>
<td>7.14</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>Bhujel</td>
<td>3</td>
<td>2.38</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Nepali</td>
<td>2</td>
<td>1.60</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Shrestha</td>
<td>2</td>
<td>1.60</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Gurung</td>
<td>1</td>
<td>0.80</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>Sharki</td>
<td>1</td>
<td>0.80</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>126</strong></td>
<td><strong>100</strong></td>
<td><strong>239</strong></td>
</tr>
</tbody>
</table>

The majority of Lukla interviewees remarked that Lukla lacks good leadership in politics, social development and environmental protection. The immigrant communities such as Tamang, Rai and other minority communities have formed their own community welfare organizations and unite themselves. Sherpas of Lukla felt that they need to organize themselves in an association; therefore they have formed Sherpa Kyidug (association) in 2010 for the preservation of Sherpa culture, development of tourism, conservation and management of environment. Lukla Sherpa Kyidug has not been able to expand its influence in the community and take leadership role yet. As most of the educated Lukla Sherpas are outside the area and Sherpas have not been able to unite under one umbrella organization, immigrants are trying to take control over the local affairs. Some interviewees even feel that Sherpas are voiceless; outsiders are becoming powerful and their stakes are at risk. Since Lukla has a heterogeneous community, it is
obvious that there is diversity in opinion and makes the situation quite political. The constitution of Lukla CFUG presents more than 498 immigrant population has been residing in Lukla temporarily (Table 3.9). Even among the permanent residents, local Sherpa population is only 75 percent and the remaining are immigrants (Table 3.8).

On the positive node, though there are some cultural differences between these different ethnic communities, there are no specific conflicts as such except over territory and rights. Tamang people are Buddhist followers and are adopting different aspects of Sherpa culture. Instead of celebrating Hindu festival Dashain they have started to celebrate Sherpa festival Lhosar over the past few years. Since Lukla has the largest population in the context of Pharak villages and their economic level differ from other villages, Lhosar is celebrated in two different Sherpa led groups. The classification of the group was done on the basis of accommodation capacity, cultural interest, such as dance and song, drinking and food habits of the participants. The group known as local team includes Sherpa dance and song experts and follows Lukla’s endemic traditional culture. The second team includes hoteliers like Sherpa lodge, Himalaya lodge, Khumbu resort, Paradise lodge, Namche hoteliers, etc. More of the youths join the hotel team. In order to accommodate the Lhosar festival as per the interest of Lukla community, fit with tourist seasons and follow the cultural tradition, it is observed for two consecutive days collecting cash from each participating family. The festival is hosted by three lawas (hosts) on rotational basis every year. This tradition has been practiced for more than 16 years approximately since 1995. Some Tamangs and Rais also join these lhosar parties. Damais (Hindu caste, so called “untouchable”) have not taken part in Lhosar party yet. The lhosar participants have total freedom to decide which team to choose depending on
their personal interests. The grouping is not done on the basis of discrimination but rather on the basis of democratic self-decision. Tamang community also joins one of these two Sherpa groups to observe Lhosar festival. In addition, Tamangs also host Dumje and nyunge festivals with Sherpa community in the Kemgun monastery. Two Rai families have already hosted Dumje festival though it is not their religious and cultural tradition. Damai community of Lukla has shown interest to host Dumje at Lukla but Sherpa lawa partners have not accepted the partnership with the Damais. Damai ethnicity is considered as untouchable caste under the Hindu caste system. The religious leader at Lukla notes that Damai Krishna had already followed the Sherpa tradition of funeral rite in the Kemgun monastery when one of his relatives died. Traditionally, dalit people like Damai and Kami would not even enter monasteries or Sherpa houses, but this is not the case now. The hosts (lawa) of Lukla Dumje comprise two Sherpas and one Tamang, Rai or other ethnic groups whoever is interested. A few Tamangs however observe Dashain festival, partially, and Tihar fully. Rai, Chetri Brahmin and Damai communities celebrate Dashain and Tihar both.

Figure 4.11: Kyaksing ICCA community forests of Lukla CFUG

Red panda photo courtesy by Himalaya Lodge, Lukla
4.6.6 Mushey BZCFUG

Mushey (Nangbuk in Sherpa) BZCFUG’s total area is 225 hectares, spread within its four side boundaries of Lukla ridge edge to the east, Lumchanga river in the west, Kyongma and Chaurikharka border to the north and 40 meter from the big cave on the old trail to Lukla on the south. Angeri, rhododendron, oak, blue pine, silver fir, Himalayan hemlock, champ and thorny species are the major vegetations of the Mushey CFUG. The total number of households is 51 with a total population of 245. Out of this, male and female populations are 135 and 110 respectively. Sherpa is the main ethnicity of the local population. (Mushey CFUG Constitution, 2061).

4.6.7 Tong BZCFUG

The Tong BZCFUG lies in ward number seven of Chaurikharka VDC of Pharak Buffer Zone of Sagarmatha National Park. Tate, Sewangma and Dungde residents are the user members of Tong community forest. Though Dundge village is located at ward number 2 and separated by Dudhkosi River, Dungde community had been using the forest of current Tong CFUG since time immemorial. An old trail from Tate and Sewangma to Taksindu used to link Khumbu and Solu before Lukla airport was built in 1964 and the bridge was built at Jubing in the 1970s.

Tate and Sewang had considerable amount of old-growth coniferous forests until last decade. However, those forests have been logged by the users themselves and sold to the Lukla market. Since the split of Danfe CFUG, it is functioning better to some extent, but it lacks effective management and governance. The CFUG itself is not well coordinated and strengthened. The community forest user groups and buffer zone user
groups’ meetings report that Tong CFUG is often absent in coordination and communication meetings. This CFUG is the most remote CFUG from Lukla and Nauje.

4.6.8 Conclusion

Thus, because of the central government’s intervention over the old-growth Pharak forests during the Panchayat regime, the Pharak region of Nepal has experienced different changes over its landscapes from 1950 to 2012. The pristine natural forests were severely degraded during DFO governance era and the secondary growth forests are encouragingly coming back through voluntary conservation of local communities over the last one and a half decades. The Pharak Sherpa people and ethnic minority communities are regaining their forest governance, management and use rights through the Buffer Zone Community Forest User Group institutions. However, all of the Pharak BZCFUGs are facing numbers of challenges which are related to its collaborating government counter parts, that is Sagarmatha National Park and Buffer Zone, and some are related to its own organization. The following chapters will elaborate these in more detail.
CHAPTER 5
FOREST USE AND MANAGEMENT

This chapter presents thematic discussions of the field research findings on community forest management and governance of the Pharak region, the buffer zone of the Sagarmatha National Park. Particularly, it describes the changing scenarios of timber felling in the Pharak region and timber trade in the Khumbu region. Secondly, it discusses the various rules that the Pharak buffer zone community forest user groups have developed to govern and manage the community forests and private forests. In order to have sustainable forest use, the Pharak CFUGs have made rules regarding community forests, religious forests and private forests. Thirdly, the Pharak CFUGs have also regulated a firewood collection system to protect the community forest. Finally, the chapter discusses the pressure posed by immigrants on the forests in the Pharak and the registration system that the CFUGs have initiated in order to legitimize their access to forest.

5.1 Changing Timber Trade in the Sagarmatha National Park and Buffer Zone

The forest degradation in the Pharak region is directly related to the establishment of the Sagarmatha National Park. The Pharak Sherpas did not have timber shortages until SNP was established in 1976. Since the park imposed restriction on logging of the Khumbu forest, the pressure on forest shifted to the nearby Pharak forests (Stevens, 1993, 1997) and caused the forest degradation starting from Monzo, the park’s adjacent village, the early 1970s (WWF, 1995; Sherpa, 2000). All the timber requirements of the park
(Khumbu region) were supplied from the Pharak forests. The old-growth blue pine, silver fir, hemlock and juniper trees were felled for timbers, and oak forests were felled for production of charcoal. The timber logging process in the Pharak region is all manual. Trees are felled and lumbers are produced by using axe and handsaw, powered machineries are not available. Boards are cut by two persons in forests and carried by men to the village (Figure 4.1).

**Figure 5.1: Hand-saw mill for production of timber**

Since the Pharak forests were badly degraded, community forest user groups were established to address the problem in 1998. Consequently, forest logging and timber trade have decreased considerably. The timber logging and trading practice of the Pharak region are self-regulated and banned by the CFUGs through awareness raising, alternative energy development and income generation activities. Gradually, the lumber required for construction projects in the Khumbu region shifted beyond the Pharak region. After the Pharak CFUGs decided not to cut the Pharak forests and stopped the timber sales in 1998, timber required for Khumbu was imported from Phaplu and Jiri. Lumbers were airlifted from Phaplu and Jiri by MI-17 the Russia made helicopters for almost a decade. However, many of the helicopter companies could not sustain their business due to accidents, among other reasons. In addition, some of the companies
leased out their helicopters to the US military operation in Afghanistan. Tara Air’s single engine Pilatus Porter airplane filled up the service gap of the helicopter companies and has been transporting timber from nearby airstrips to Shyangboche in the park for the last two years. Individual timber traders from Solu have established timber depot at Shyangboche airstrip. Because of the high airfare, timber cost at Shyangboche is very high. A lumber with 6’x9”x2” size costs Rs. 1,000 (US $ 13) and Rs. 800 (US $ 10) at Shyangboche and Lukla respectively. This is probably the most expensive rate that the Khumbu and Pharak Sherpas are paying for timber so far.

Although there are community forest user groups in the Solu region, the logging of old-growth blue pine forests takes place in the Taksindu, Phera and Salleri areas. Sometimes lumbers waiting for flight to Shyangboche have been stranded for more than a year at the Phaplu airstrip, have occupied space on the runway and become a political issue as well. The timber traders have to seek transportation permit from the DFO by paying royalty to the government. After Solu, Jiri in Dolakha district has become the second major timber source for Khumbu. The *Pinus patula* (Mexican weeping pine) trees planted by the local community forest user groups with the support of Australian and UK-Community Forestry Projects in the 1980s and 1990s have been harvested and timbers are sold to Khumbu contractors. Apart from this, many of the Khumbu lodge owners import ready-made furniture from Kathmandu as well. These alternatives timber supplies have considerably contributed to the conservation of the Pharak forests over the last one and a half decades.
5.2 Rules Relating to Community Forest and Private Forest

The majority of Pharak interviewees revealed that since the community forestry system was established in 1998, the logging process has become easier than before. However, there are problems associated with the community forest logging process in some of the CFUGs. For example, some of the users in Kongde CFUG have misused this privilege by logging more trees and selling the lumbers to others. So, in 2009, Kongde CFUG has made a rule to issue logging permit only after ensuring that the logging is genuinely for personal use to construct and repair house, and not for sale. This rule is effective up to date in Kongde CFUG.

The private forest owners have the rights to log and sell their forest after securing the logging permits from SNP on recommendation of CFUG and BZUG. However, the Kongde CFUG has ruled out and stopped the sales of private lumbers arguing that they have been dishonest and felled the community forests in the name of private forest illegally. This kind of misappropriation in the community forest has occurred due to unclear boundaries between the community forest and private forest, and dishonesty of the loggers. Moreover, when private forest owners sold their timber, they also favored to transport unauthorized timber of their relatives along with their sand made the timber business illegal. As a result, private forest holders are not allowed to sell their timber outside of their group nowadays. This rule has also helped to protect the Kongde CFUG forests and habitats to some degree.

The total area and boundaries of the community forest and private forest needs to be demarcated with the help of a technical surveyor. Unless the boundaries and areas of the private forest, community forest and religious forest are demarcated, and the
boundaries are agreed to be customary and fair by long established residents, the controversy over boundaries, areas and forest use are likely to prevail. A recently settled Rai user contested that Kongde CFUG has more private forest than community forest during the Kongde CFUG AGM. In the discourse, the permanent residents justified that they have owned the land since their ancestor’s time and have not logged forest haphazardly, but rather helped to conserve the forest and environment.

**Figure 5.2: Annual General Meeting of Kongde CFUG in July, 2011**

> During the general meeting’s agreement in 2010, the neighboring Pemacholing CFUG decided to stop logging in the community forest for five years. Logging private forest, however, is excluded in this decision. January to March is designated as the tree-felling period for private forests. There are growing interests from the private forest holders to sell timber to the Nauje and Lukla markets. However, unless Pemacholing CFUG issues the transportation permit, private forest owners cannot sell their timber to users of other CFUGs or beyond CFUG boundaries. If the timber has to be transported to the park, SNP authority also has to issue the transportation permit to traders. In addition, the CFUGs en route to the Nauje or Lukla markets have to agree to transport the timber. In 2009, Pemacholing CFUG sold timber worth Rs. 1,09,000 (US$ 1,363), felled from the community forest in Lukla to invest in the construction of the 30-kilowatt micro-hydro
project at Shyamkaechha khola. The AGM of the Pemacholing CFUG in 2011 decided that private forest holders are to stop lending timber to others as this leads the timber being traded to other CFUGs. Some of the users are dishonest; as a result, conservation rules are made to be strict. However, it is sometimes a challenge for the CFUG members as some of the elites create pressure.

In 2011, the Pemacholing CFUG AGM also proposed to charge Rs. 1,000 (US $62) per household per year as a forest use fee with a membership renewal charge of Rs. 300 (US $4) from the second year. This is for the local residents only. The money generated from this fee has been proposed to be used for printing users’ certificates and forest monitoring activities. Pemacholing does not have immigrant problems unlike other CFUGs as it is located off the tourist routes.

5.3 Firewood Collection Rule

The firewood collection rules in most of the Pharak CFUGs are similar in many ways, but there are also some differences at individual CFUG level. Therefore, the major rules of some of the CFUGs are illustrated in the following paragraphs.

The firewood collection in the Himalaya CFUG has been regulated to collect only two times in a year since 2006. Each household can have a maximum of two firewood collectors for a maximum of fifteen days in every six months. This rule has brought reduction in firewood collection in comparison to previous years. The rule was first initiated in the Khumbu villages at different time periods. Khumjung village introduced it in 2002 and other Khumbu villages replicated gradually. This rule has minimized the felling of live trees for firewood as only dry and dead wood are permitted to collect. The
local residents to some extent suffer from laborer shortages and high labor wages. In comparison, tourist lodges have more laborer than the ordinary households as they hire more people to work in tourist seasons. But they cannot hire more than two firewood collectors per day. Firewood collection period is limited to off trekking seasons that is one in winter and one in monsoon. Secondly, the immigrant community can easily get two laborers per day as they provide food to porters and Saturday marketers, and reconcile their accounts in wages for firewood collection. In contrast, the local Sherpa people who are off the tourist area struggle to find even one laborer to collect firewood. The firewood collection system is operated through chit permit system. The CFUGs issue firewood collection chits to its users and monitor it when they bring firewood from the forest.

Secondly, in the case of Kongde CFUG, there are 14 immigrant families at Toktok village alone who stay in rented houses. They provide lodging and food to porters who transport goods from Lukla to Nauje. Instead of collecting cash from those porters, they take labor service and reconcile their accounts. They have porters collect firewood when the collection period is on. One immigrant family will have minimum of four firewood collectors, whereas the local residents hardly have one or two laborers. So the firewood collection is not proportionate and equitable in the Kongde CFUG. The recent immigrant community benefits more than the local residents from the local forests. There has been a case of an immigrant household who sold more than Rs. 70,000 (US $ 900) of firewood and left the area. The Kongde user members have realized that if rules are not made and enforced, more immigrants are likely to migrate to the area and clear the forests for their income. Kongde CFUG however has not yet made rules allowing only a
maximum of two firewood collectors per household as in other CFUGs and Khumbu. Apart from the firewood use, the immigrant community has also kept larger numbers of zapkyoks and oak trees are felled to collect fodder. The fodder collection practice has degraded oak forest at Chema area and requires immediate protection of that forest.

Although occasional decisions were made to regulate firewood collection during Danfe CFUG’s tenure, the implementation did not become effective. As a result, live trees were chopped for firewood and had caused forest degradation. No fee was charged for firewood collection. Since this regulation of collecting firewood only two times in a year has been implemented in Lukla CFUG since 2009, firewood collection by immigrants and sales to local people is under the control of CFUG. Consequently, immigrant laborers adopting the business have moved out elsewhere and the problem has decreased.

Thirdly, the Lukla CFUG also has the same rule as in the Himalaya, Kongde and Dudhkunda CFUGs, that is two times in a year with only 15 days’ opening of firewood collection in six months. One family can have a maximum of two laborers per day collecting firewood. The annual membership fees in Lukla CFUG to the permanent residents are as follows: a) Rs. 500 ($ 6) to hotel/lodge; Rs. 300 ($ 4) to teashop; and Rs. 100 ($ 1.25) to ordinary house. The annual membership fees for immigrants, who are temporarily settled in Lukla, have to pay the following fees in order to have forest access: a) Rs. 1,200 ($ 15) to hotel/lodge; b) Rs. 600 ($ 7.5) to teashop; and Rs. 300 ($ 4) to ordinary household (Lukla CFUG Constitution, 2006). However, in practice everyone pays a flat rate of Rs. 500 (US $ 6) per permit per opening. The annual permit fee will be Rs. 1,000 (US $ 13) in total for one family. This rule is different than any other CFUGs
of the Pharak region. The CFUG has hired two forest guards and pays the salary of Rs. 5,000 (US $ 63) per person per month. These forest guards station themselves near the airport and check permits of firewood collectors during firewood collection seasons, and maintain the database.

It takes three hours to get to the forest and two and a half hours to come down with a load of firewood. So people can hardly collect one load of dry firewood in a day. The rule has been formulated without considering the differing income levels and rights of forest users. There is no categorization of the forest users such as low-income and high-income local people, low-income laborer, high-income immigrants, etc. The flat rate for everyone is easy to regulate, but this rule is socially unjust to the low-income original residents and violates the inherited resource use rights of the local residents. The original Lukla residents have inherited forest use rights since their ancestral period, but the recent immigrants do not have those rights. This aspect has not been considered in this regulation. In the case of Lukla, the original Sherpa people are perhaps among the lowest income holders and they have been suffering from various kinds of social and political pressure from the recent immigrants. It is only the outsiders who came to Lukla and conducted forest related businesses and there are now more outsiders than local residents using the Lukla forest. The local people are finding it too difficult to manage this immigration, forest and firewood problem.

It is interesting that the government deputed airport security policeman has not abided by the Lukla CFUG rules. There are more than twenty-five policemen stationed at Lukla airport who ignore the Lukla CFUG rules and collect firewood without obtaining a permit or paying the royalty. In addition, they collect the firewood without considering
the CFUG declared firewood collection seasons\textsuperscript{21}. The policemen claim that the area is expensive and they have to use their fuel allowance to purchase their rations. However, this does not justify their case as they get an additional separate allowance for being in remote and expensive area. This situation can be effectively managed if the SNP Chief Warden could coordinate a meeting and address this issue. It seems that the local people are trading off conservation for public security. This is a long-term ongoing problem and needs to be addressed immediately.

\subsection{5.4 Registration of Immigrant as Forests and Grazing Commons User}

The Himalaya CFUG based at ward number 1 of Chaurikharka Village Development Committee was solely inhabited by Sherpa community before the 1990s. Because of tourism business and employment opportunities, people from different parts of Nepal have started to migrate to the CFUG area since the early 1990s. The Himalaya CFUG had only 11 households of immigrant community in 1998. By 2004, the number reached to 30 households with a population of 115, which included Rai, Tamang, Magar, Chetri and Shrestha. The use of forest resources by this immigrant community became a challenge to the Himalaya CFUG in the early stage of its formation. The local people have made conservation contribution since ancient time and played more active role after the 1990s. They have conserved the forests through formation of community forest user group, plantation, thinning and pruning, forest patrol and grazing control. More importantly, the local residents conserved these resources through their cultural and religious values and belief system. However, this is not the case with the immigrant community. In addition, they operate teashops, restaurants, lodges and shops and make an
impact on local forest resources. Many of the immigrants also produce local brewery like chyang and raksi at their homes, which require plenty of firewood to process. They also take the raksi to Khumbu at night so their businesses are not noticed. They collect firewood, pile at the backyard and sell to local lodges whenever possible (Figure 4.3). Many of them have kept zopkyoks, which require plenty of forage. Therefore, in order to make them responsible towards the conservation and management of the local forest resources, the Himalaya CFUG started to register the immigrant community and issue membership certificates since early 2000. The annual membership fee was Rs. 500 (US $6) per household in 2004 to 2010. Since, the in-migration trend of immigrant and their impact on community forest is increasing in the Himalaya CFUG; the committee increased the membership fee by ten folds and made it Rs. 5,000 (US $62) per household per year in 2011. The Himalaya CFUG issued permanent residents’ certificates to Gokarna Rai and Ram Kumari Rai access to community forest resources effective from July 16, 2011. They both qualified for this membership status as they have bought fixed assets like house and land at Chumoa village and applied for membership. The fee for permanent forest user membership registration has been fixed at Rs. 15,000 (US $190) per household. These new users can become executive members of the CFUG from the first year of their approval as members, however they have to wait for at least three years to get the logging permit. The Himalaya CFUG chairperson granted the membership certificates and offered khata to recognize their membership publicly during the AGM. The decision on the fee and membership system was made by the meeting of Himalaya CFUG held on June 12, 2011.
In order to reject the proposal of immigrant forest use registration with an annual levy of Rs. 5,000 (US $ 63) per household, the immigrant community registered a petition complaining against the Himalaya CFUG in the office of Young Communist League (YCL) of Nepal Communist Party (Maoist) office at Lukla right after the meeting. They complained that the forest use tax of Rs. 5,000 (US $ 63) per family a year was too much and the decision was made in their absence. The issue was publicly debated in the AGM of the Himalaya CFUG on July 16, 2011. Rana Bahadur Pandey, on behalf of the immigrant community, defended the case. Bhupa Bahadur Thapa of SNP gamescout supported Pandey and Thapa himself became controversial during the discourse. The Himalaya CFUG chairperson Dawa Tshiri Sherpa said to the immigrant community that

“Should we the permanent residents have to stay under the rules made by you immigrants or vice-versa? He further said that the immigrant community has not made equal conservation contribution to the Himalaya CFUG and the Monzo-khola micro hydro power project as the local residents.”

Therefore, they have no rights to oppose the CFUG’s decision. Furthermore, they soured the relation with the Himalaya CFUG by taking the case to YCL office, instead of negotiating it with the CFUG. Most of the CFUG members explained the immigrant community that the annual fee should be taken as a conservation contribution. The decisions and issues that came out of the meeting were supposed to be incorporated into the operational plan and constitution of the Himalaya CFUG by SNP authority. SNP Assistant Warden said that the decision of levying Rs. 5,000 (US $ 63) per household forest use fee should be considered positively.
Similarly, the Kongde CFUG also decided to charge Rs. 5,000 (US $ 63) as an annual fee per immigrant household for their access to local forest from July 2011. The membership enabled them to collect firewood, fodder, leaf-litter and non-timber forest products in Kongde community forest since 2011. Since 2011, a single family cannot have more than two firewood collectors. The Kongde CFUG planned to hire three forest guards to monitor firewood collection. The fees collected from immigrant’s forest access membership fees will be invested and reinvested for this purpose. This rule is important to implement as the permanent residents have concerns about the local forest, whereas the immigrants do not have this stewardship responsibility. DB Kiranti, an immigrant, who has bought land and settled at Phakding around 2007 opposed that charging Rs. 5,000 (US $ 63) per household is a discrimination against immigrant community and warned that that might invite confrontational situation particularly when everyone’s mind is tensed up by the political situation of the country. The permanent residents however justified that the fee is not to discriminate or create the levels of outsiders and insiders; it is rather to contribute for the conservation so that it becomes equitable to use the local forest resources by everyone. In addition, the local residents warned that politics should not intervene in the community forest user group. The tradition is that new comers have
to follow the rules created by the permanent settlers. So the Kongde CFUG rules are not
made just to discriminate against the immigrant community. But the issue will probably
need to be settled through court.

Likewise, Dudhkunda CFUG has different rules for forest use by immigrants.
Immigrants who operate teashop in rented house in Dudhkunda CFUG area has to pay
Rs. 3,000 (US $37) as forest use tax per year. Secondly, forest use fee to those who buy
land in Dudhkunda CFUG is calculated at the rate of Rs. 2,000 (US $ 25) per year and
multiplied by the total age of the CFUG. If someone buys land and settles permanently in
the Dudhkunda CFUG, then the forest access fee will be Rs. 28,000 (US $ 350) in total
because they pay for all fourteen years of the CFUG’s age (formed in 1998). Dudhkunda
CFUG’s forest use membership fee is the highest among all nine CFUGs of the Pharak
region. The high rate of the membership fee discourages in-migration to Dudhkunda
CFUG. The firewood collection rule is the same as in other CFUGs. Firewood can be
collected for fifteen days each of the two times in a year and can have a maximum of two
laborers per day.

Dudhkunda CFUG has one Chetri family in Lhowa and two Rai families in
Yulngying. There are four local families and one immigrant family who farm zopkyoks
for pack stocks. Sak Bahadur of Lhowa is the only outsider who owns five zopkyoks.
There are twenty-five zopkyoks in Dudhkunda CFUG in total. Outsiders keeping
livestock including zopkyoks have to pay Rs. 500 ($ 6) per animal per year as grazing tax.
Zopkyok farming practice has caused scarcity in fodder species particularly on oak and
bamboo species and degraded the forest health of the conservation area despite the ban on
collecting forest fodder there.
The human landscape of Lukla is changing faster than ever before due to tourism. The original Sherpa people of Lukla have sold many of their land to immigrant Sherpas and Tamangs. Some have moved to Bom. Bom is located about an hour’s walking distance and is east of Lukla. It is basically subsistence agriculture and transhumance farmland, where they grow plenty of Jerusalem artichoke. Some of Lukla’s original Sherpa managed to remain in Lukla and Chongma villages. People from outside are finding much more opportunities at Lukla and try to settle there. The trend of in-migration is ever increasing. The majority of in-coming migrants are wage-laborers. The reasons for their migration to Lukla are tourism related employment. Moreover, they can get labor and trekking porter jobs. Lukla also has a good school, hospital and other basic facilities available free of cost. Forest resources are available at minimal costs. For example, the annual firewood use fee is Rs. 1,000 (US $ 13) per household. Sherpa children are sent to boarding schools in Kathmandu. Immigrant families enroll their children at Lukla School. In and around Lukla, there are many immigrant laborers who work on stone and sand quarrying work and timber business. Stone and sand are quarried from distance and sold to local people for construction projects. As a result, stone and sand are becoming scarce at Lukla. Some collect firewood and are sold to local lodges. The Lukla CFUG has not yet made rules to manage these resources.

Lukla Sherpa village I interviewed strongly feel that if five trees are felled, ninety-five should be planted. But the situation in Lukla is different and they report that if there are “five percent people who cares for Lukla, ninety-five percent people are destroyers”. Nobody really cares for Lukla except a few Sherpas and immigrants are controlling the affairs in Lukla. Immigrants who come to Lukla are elites and clever
people. The Lukla Sherpas are less educated and many out-migrated in search of job. Only uneducated or less educated, old families and powerless Sherpa people are left in the village. So outsiders, particularly non-Sherpa people and some Khumbu and other Sherpa immigrants are gradually displacing the Sherpa population of Lukla.

The Khumbu Sherpas who are mostly settled in Lukla since 1980 identify themselves as Khumbok and thus show their solidarity and attachment to their native Khumbu community than to the Lukla Sherpa community. Although they have been living in Lukla for more than three decades, they attend and host Dumjee in their home villages of Khumbu and do not take part in Lukla Dumjee. This has to some extent weakened the social and political position of the Sherpa community at Lukla. Moreover, some of the Khumbu Sherpas have started to move to Khumbu as the pattern of tourism is changing and business is more competitive and benefits are now diminishing at Lukla.

The primary objective of immigrants coming to Lukla is to earn a living through tourism, and after earning some money, they buy land. They do however depend on natural resources, primarily forest, because their continued stay at Lukla is uncertain. The majorities of immigrants in Lukla stay in rented houses and do not own houses or lands. As a result, they do not have much concern and sense of belongingness over the local environment and resources. Therefore, the immigrant community becomes active resource exploitation but do not contribute for conservation. This is one of the major reasons that Lukla forest has been badly degraded and the trend is still persistent.
5.5 Use of Alternative Energy and Construction Materials

The use of firewood as the primary source of energy and timber as the major construction material are causing the forest degradation in the Pharak region. The local lodges have been using alternative energy sources like propane gas and kerosene for cooking since last decade. The costs of these energies are lesser than firewood. These are easier to use, healthier, faster and cleaner. The firewood cost has gone up due to high labor costs and scarcity of firewood in forests. The cost of one cylinder of propane gas and a pile of firewood is approximately Rs. 5,000 (US $63) in the Himalaya and Kongde CFUGs. Comparatively, propane gas is more durable and healthier than firewood. Depending on the availability of kerosene, many lodges also use kerosene stoves.

Growing timber demand for accommodation of the rapidly growing number of tourists and construction of other facilities including local houses and physical infrastructure have put tremendous pressure on the Pharak forest over the last three decades. Since the Pharak forest had degraded drastically and reached to a stage of scarcity at the end of twentieth century, people thought of using alternative construction materials, such as imported plywood, corrugated zinc roof sheet, iron truss instead of wooden beams and poles, and foam mattresses for insulation of walls and ceilings. These new innovations have considerably reduced the use of lumber in construction and helped save forests over the last one and a half decades.

The majority of tourist lodges and hotels in Lukla use propane gas and kerosene for cooking. Firewood is mostly used for heating the common room in winter, but it is also used for cooking purposes. There are about forty lodges and fifty teashops, which use firewood in Lukla (MFSC/DNPWC, 2007). Electricity generated from micro-hydro
power plant is not enough even for lighting. Only few of the ordinary families use firewood for cooking in the village. However, the price of one pile of firewood is equal to the cost of two cylinders of propane gas, and two propane gas cylinders can last longer than one pile of firewood. The price of one pile of firewood is Rs. 9,000 (US $ 113) and two cylinders of propane gas costs Rs. 9,200 (US $ 115). Propane gas is relatively easier to use, hygienic and better for health. Firewood has become costly due to heavy pressure on forests and the high labor cost.

The scarcity of timber in Lukla has obligated the Lukla people to use alternative construction materials. There is a growing trend of Lukla people using cement, iron rod, plywood, corrugated iron roof sheet and glass for construction of lodges and houses. Because of the airport in the village, the transportation of these materials to Lukla has been easier than for any other Pharak and Khumbu villages. This practice will gradually help protect some of the secondary growth forests of Lukla in the future.

5.6 Grazing Commons Management and Governance

Unlike other CFUGs, the Himalaya CFUG has been successful in levying grazing tax in the alpine zone of Thamsarku and Kusum Khankar valleys. Pemacholing and Dudhkunda CFUGs are discussing about starting to levy grazing tax for Lumding valley, but it has yet to be materialized. The residents of Himalaya CFUG can graze their yak, nak and other cattle without paying any taxes to the CFUG. However, agropastoralist from other CFUGs cannot take their livestock farms to Himalaya CFUG area without paying the grazing tax. Dawa Tenzi Sherpa of Rimjung sometimes takes his Zom herd to Himalaya CFUG area paying the grazing tax. It used to be free of tax before the CFUG
was established. Ang Kancha Sherpa (Pasang Nuru) of Rimijung, also a resident of Benkar, keeps more than 20 zoms. He has land and houses both at Rimijung and Banker. He has the privilege of taking his zom to both Kongde and Monzo alpine areas without paying the grazing tax since he is a user of both Kongde and Himalaya CFUGs. The only the difference is that there are more grass available in the Monzo area than in Kongde. Kongde is partly in the SNP and partly in the Himalaya CFUG areas. Grazing area of Kongde is narrower than Monzo’s. Neither SNP nor Himalaya CFUG manages the grazing commons of Kongde though. Historically, people of Rimijung, Ghyuphete and Thumbuk used to take their zom and yak farms to Kongde. Dawa Tenzi, Pasang Nuru and Ang Kancha Sherpa still continue the practice.

Apart from the traditional zom and yak farming, there is a growing trend of non-local Sherpa farming more zopkyoks, mules and horses as part of the tourism business. Rai, Chetri, Magar and Sherpa of other parts of the Solukhumbu and neighboring districts have kept zopkyoks to serve tourists and transport food supplies to Khumbu from Lukla in off-trekking seasons. Mules run between Ramechap, Jiri, and Salleri to Nauje transporting cement, rice, salt and other household supplies. Zopkyoks are taken to alpine zone for summer grazing, to give rest, gain more weight and strength so that they work during the trekking seasons in autumn and spring. Each zopkyok is charged Rs. 500 (US $6) per season to graze in the Himalaya CFUG area. Himalaya CFUG evacuates zopkyoks from its area if owners failed to pay the grazing tax. The CFUG has collected Rs. 13,300 (US $166) as grazing tax in 2011 (Table 4.1). The Dudhkunda CFUG charges Rs. 500 (US $6) per zopyok per year regardless of wherever they graze. Pemacholing CFUG has not been able to charge the grazing tax to cattle in the Lumding valley although its
operational plan has the provision of charging Rs. 200 ($2.5) per cattle per year. None of the other CFUGs have regulated grazing commons in the Pharak region so far.

**Figure 5.4: Zopkyoks carrying trekkers’ luggage (left) and zom milking (right)**

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Income heads</th>
<th>Amount</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Grazing tax</td>
<td>Rs. 13,300</td>
<td>Collected from zopkyok farmers</td>
</tr>
<tr>
<td>2</td>
<td>Thal sales</td>
<td>Rs. 13,230</td>
<td>Sale of young trees as thinning blue pine forest.</td>
</tr>
<tr>
<td>3</td>
<td>Sand sales</td>
<td>Rs. 15,500</td>
<td>Sand sold to Thamserku hotel building project.</td>
</tr>
<tr>
<td>4</td>
<td>Fine collected from illegal logger</td>
<td>Rs. 5,000</td>
<td>Young blue pine trees illegally felled for making <em>thal</em>.</td>
</tr>
<tr>
<td>5</td>
<td>Permanent resident membership fee</td>
<td>Rs. 30,000</td>
<td>CFUG membership registration fees from Gokarna Rai and Dhan Bahadur Rai.</td>
</tr>
<tr>
<td></td>
<td><strong>Total income</strong></td>
<td><strong>Rs. 77,030</strong> (US $ 1000)</td>
<td>The total expenditure is Rs. 14,680 (US $ 200)</td>
</tr>
</tbody>
</table>

*Source: AGM of Himalaya CFUG held on July 16, 2011.*

The CFUG management and governance system in the Pharak region has made a drastic change in the forest ecology of the Pharak buffer zone over the last fifteen years. The CFUG system has empowered the local communities in decision-making process of their forest and grazing common resources. It has retained the sense of self-governance, autonomy and self-determination of the indigenous Sherpa people and ethnic minorities.
over forest and grazing common resources in the Pharak buffer zone. The chairperson of
the Khumbila BZUG of Pharak said that,

“Since CFUG system has been initiated, local communities have gained
sovereignty and autonomy over forest use, management and governance.
Conservation is successful now.”

5.7 Conclusion

The Pharak Buffer Zone Community Forest User Groups have been able to self-
regulate, change the forest use, management and conservation governance rules over the
last one and a half decades. The ban imposed on timber logging and trading to Nauje and
Lukla markets since 1998 has halted the forest felling practice in the Pharak region.
Various rules relating to forest conservation, management and governance have been
formulated and enforced to regenerate once severely degraded Pharak’s old-growth
forests. Secondly, the firewood collection for fuel-wood has been regulated and limitation
has been imposed on its collection. This regulation has motivated some of the lodge and
hotel owners to use alternative energy like propane gas and kerosene for cooking. Micro-
hydro power plants and peltric sets have been installed in Himalaya, Kongde,
Pemacholing, Dudhkunda and Lukla CFUGs to generate electricity. The ban on tree
cutting has also motivated the tourism entrepreneurs to use alternative construction
materials instead of local timber. Most importantly, the buffer zone community forest
user group regulation has enabled the Pharak Sherpa communities to register immigrants
as forest users, levy forest and grazing commons use taxes and maintain the local forest
and wildlife biodiversity of the Pharak buffer zone. However, there are a number of
challenges associated with the forest management and governance in the BZCFUG system, which require more concerted efforts to overcome. This will require closer cooperation, coordination and partnership between CFUGS, BZUGs and SNP in the future.
CHAPTER 6
COMMUNITY FORESTS’ ISSUES: RELATIONSHIP WITH SNP

This chapter discusses two different types of conflicts that prevail between the Sagarmatha National Park/Buffer Zone and Buffer Zone Community Forest User Groups. Also this chapter discusses the forest logging permit systems and technical assistance to CFUGs both under District Forest Office (DFO) and Sagarmatha National Park Buffer Zone (SNPBZ) governances.

The first type of conflict is conflict due to cultural differences and the second one is management and governance related conflict. The discussion on cultural conflict elaborates on the Sherpa community’s Buddhist beliefs and the desire for the retention of the Khumbu Beyul as a non-violent and peaceful area. This belief motivates the Sherpa community of the Pharak and Khumbu regions to impose a ban on slaughtering any livestock in the Khumbu Beyul. The discussions on the second type of conflict points at the park management authority substituting all timber cutting stamps from the CFUGs for only one seal possessed by the park authority, thereby re-centralizing the forest management and governance authority in the decentralized buffer zone management program.

6.1 Cultural Conflicts: Slaughtering of Livestock Prohibited in the Khumbu Beyul

The Khumbu and Pharak Sherpa Community consider both the regions belong to the Khumbu Beyul. As per the Buddhist tradition and Sherpa cultural beliefs, the Sherpa community refrains from taking lives of any creatures, and has prohibited slaughtering of
livestock in the Khumbu Beyul since the last decade. The regions were non-violent areas before the SNP was established in 1976. However, after the establishment of the park, people following Hinduism were deputed as the park security guards and administrative staff. The park staffs slaughtered goat and chicken in the Khumbu Beyul. In addition to that, buffalo, chicken and goat were slaughtered at Nauje to meet the meat demand. In the late 1990s, the Nauje Youth Club and the buffer zone user groups prohibited the Hindu people slaughtering livestock usually done in the southern part of Nauje during the Saturday market (haat bazaar). Since then, the livestock slaughtering stations were gradually removed from all the Pharak villages and the restriction has literally reached Jubing VDC and beyond. However, since SNP has more than 250 Hindu soldiers, 34 park staff and many officials including police who require regular meat, the park staff Bhupa Bahadur Thapa and retired SNP soldier Rana Bahadur Pandey partnered and slaughtered goats at the park entrance, Monzo and sold locally as well as supplied to the park office. As a result, the local community was angered, because it is against Sherpa people’s religious belief, produced bad smell and spoiled the scenery. Monzo and Chumoa Sherpa communities have requested them to stop the butchering at the park entrance, but have not been succeeded in stopping it so far.

The Himalaya CFUG Sherpa community presented this case to the Buffer Zone Management Committee (BZMC) Chairperson, Sonam Gyalzen Sherpa and the Chief Warden, Bed Kumar Dhakal at the sacred kani gate consecration ceremony held at the park entrance on July 19, 2011. There were more than 20 local representatives including Dr. Lhakpa Norbu Sherpa and park officials. Dr. Sherpa was the host of the program. The kani was consecrated by Napta Rinpoche, the abbot of Pemacholing monastery,
Rimijung. The park entrance premise was built on Sherpa’s cultural architecture with a *Lhakhang* (temple) and a residence in the support of Tourism for Rural Poverty Alleviation Program (TRPAP)^24 in 2006. Mingma Norbu Sherpa of Monzo, working as the Tourism Planning Specialist in the TRPAP, planned to replace the previous derelict building and build a new design to match traditional Sherpa architecture (Figure 5.1). The architectural design of the building was shared with Dr. Lhakpa Norbu Sherpa, Sonam Gyalzen Sherpa, Phunuru Sherpa, DNPWC and many other stakeholders. The budget for construction of the building was channeled through Buffer Zone Management Committee (BZMC) and the BZMC initiated the construction process. The buffer zone institutions had to face some of the criticisms regarding the building as some people criticized that the buffer zone built a *Rongba* (hill people of Hindu religion) quarter in Sherpa cultural and Buddhist temple architect. The criticism was valid to some extent but the park does not have any Sherpa staff and the non-Sherpa park staffs do not perform Sherpa cultural and Buddhist rituals in the Lakhang (temple) styled house.

**Figure 6.1: Napta Rinpoche consecrating SNP’s Visitor Center and the Kani at Monzo, July, 2011**

SNP entrance built in Sherpa cultural architect by SNPBZ, UNDP/TRPAP and TMI.
However, the SNP entrance building to the Sherpa community of the Pharak and Khumbu means the representation of Sherpa culture, landscape, identity, the sacred Beyul, the World Heritage Site and ultimately a symbol of national pride. The Mountain Institute with the initiation of Dr. Lhakpa Norbu Sherpa also supported building of a sacred religious kani gate with panchasil (code of conduct with five points of dos and don’ts) signboard, as the region is a religious site of Beyul. Dr. Sherpa also clarified that the signboard indicating the Khumbu Beyul is placed at the gate without the intention of segregating the Pharak region from the Khumbu region. The signboard can be taken out or placed anywhere even at Lukla or beyond. Dr. Sherpa further clarified that Beyul has three zones, the “core”, “inner” and “outer” regions. He also explained that Beyul has no political or physical boundary; it is rather for the local residents to feel and realize the sacredness. If the local residents felt that the area is sacred and they are in Beyul, the place is a Beyul, if they did not, it is not.

In addition, The Mountain Institute (TMI) has also developed the information displays in the visitor center at the park entrance in 2008. As the SNP entrance station has become a sacred and spiritual site since it is in the Khumbu Beyul, slaughtering animals is unacceptable. Upon hearing the voice of the local people, the Chief Warden assured that he would instruct the park staffs not to slaughter livestock there on a regular basis. He however said that slaughtering for personal use once in two weeks should be allowed. The BZMC chairperson said that the issue would be discussed in the buffer zone council meeting and that they will come up with a solution. He opined that slaughtering livestock in the compound of park office where a sacred kani gate is situated is incompatible with Buddhist philosophy. The BZMC chairperson Mr. Sonam Gyalzen Sherpa said, “We do
not want the park staff farming chickens and goats and slaughtering here in the office premise”. Dr. Sherpa also remarked that the park staff has to respect the local people’s religious belief and stop slaughtering chickens and goats at this park entrance. Since Napta Rinpoche consecrated the park visitor center and the kani on July 19, 2011, the locals would not approve of killing any livestock there.

Figure 6.2: SNP’s Chief Warden Mr. Bed Kumar Dhakal (left) and SNPBZ’s Chairperson, Mr. Sonam Gyalzen Sherpa (right) interacting with the community at Monzo about ban on livestock slaughtering and forest use issues of Thumbuk people on, July 19, 2011

The Monzo residents recall that the immigrant Rai community of Chumoa used to farm pigs and slaughtered them about a decade ago. The Sherpa community of the Himalaya CFUG including the women’s group stopped the practice. The Rai communities, which believe in animism25 and are non-Buddhists, have also shown interest following Sherpa cultural and religious practices. They participate in the Sherpa festivals of yul-lha and changing as well. They have also shown interest in hosting some of the annual Sherpa festivals like chowa.

The Kongde CFUG considers itself as part of the Khumbu Beyul and that the area is a religious site. The CFUG Chairperson Lhakpa Temba Sherpa, during the Annual General Meeting held on July 7, 2011, said “the practice of pig farming and slaughtering
is very bad and sad. It is affecting our environment, culture and religion.” He also opined that the immigrant community at Toktok slaughtered more than seven goats every week. This should be stopped and Kongde CFUG should be considered a non-violent area in the forth coming constitution and operational plan. He further expressed that,

“If you want to see waves in a lake, you should be able to throw the stone.
Likewise, if you want to see some positive changes in the Kongde CFUG, you should be able to express your opinions freely and openly in public”.

Thirdly, the Lukla Sherpa community believes that Lukla is a sacred land because of its location between the Khumbu and Khenpalung Beyuls. The head monk of the Kemgun monastery interprets that Guru Rinpoche (Padmasambhawa) had walked through Kari-lo (a ridge at the border of current Chaurikharka and Jubing VDC) and Thagnag – Mera Peak region to reach Khempalung Beyul in Makalu. According to the historical guidebook to pilgrimage sites of Budhism, ngeshya, Makalu valley has Guru Rinpoche’s water source, horse stopover site and the valley also has evidences of his holy visit in the eighth century B.C.. Because of these religious beliefs and spiritual connections of the Sherpa people to the land, territory and natural attributes, the area deserves the status of violence free zone.

6.2 Park and Community Forests Conflicts

There are issues and conflicts between the SNP and the buffer zone community forest user groups in the Pharak region. However, the level and intensity of conflicts differ at individual CFUG level. The issues are more intense in the Himalaya CFUG and it gradually decreases as it goes further down the valley.
First, the Himalaya CFUG is located adjacent to and shares the border with the
Sagarmatha National Park. Because of the shared border, there are interrelated issues and
conflicts between the park and the CFUG. The people of Thumbuk and Tawa used to feel
that the forest, wildlife and other natural resources of the park were park’s property and
local community has no role to play before the buffer zone was declared. The role of the
local people in the park was only as advisors, but not as decision-makers. Although this is
still the case in the park, the local people have gained sense of ownership after the buffer
zone program was launched in 2002. However, although the community of Thumbuk is
also the forest users of the Himalaya CFUG, the settlement is geographically located
inside the park boundary. As a result, users of the Himalaya CFUG residing outside the
park have more freedom and autonomy over resource access, use and decision-making
than that of its users living at Thumbuk village inside the park boundary. Moreover, the
management decision of the SNP is very much based on the warden rather than the
institution. Whenever the park gets a new chief warden, he makes his own rule, imposes
and tries to rule over the local residents accordingly. The current chief warden’s
administration intends to curtail one among the two privileges that Thumbuk and Tawak
people are enjoying, that is the access rights to both the park’s forest and community
forest. The chief warden wanted to implement this decision through implementation of
the Sagarmatha National Park and Buffer Zone Management Internal Working Procedure
2067 (2011), despite Thumbuk people’s disagreement. Thumbuk locals expressed their
concern in the Annual General Meetings of the Himalaya CFUG, Khumbila BZUG and
Monzo-Khola Micro Hydro Project at Monzo on July 16, 2011. Ang Dorjee Sherpa,
Chairperson of Khumbila BZUG ward number 1 of Chaurikharka VDC said,
“The park came only in 1976, but we the Sherpa people of Thumbuk have been living here for many centuries, we have been using the resources of Thumbuk and Monzo since our ancestor’s time and we have both conservation and use rights of the forest resources. This issue came up only because Thumbuk is on the park’s boundary.”

He further argued that if dual facility is the major concern, then Monzo people also have dual access facility to park and Himalaya CFUG’s forest, particularly for firewood, forage and leaf-litter. Thumbuk people also demanded that if they are to be deprived of the forest access in the Himalaya CFUG, then they should get a separate plot of forest on the other side of Monzo village for their use.

If Thumbuk locals select the privilege of the park, they are entitled to have three trees for construction of a new house and one tree for maintenance of old house every five years. The timber royalty of the park is much higher than that of the community forests. Dry firewood collection is free of cost but have to follow the fifteen days in six month’s rule as in the Khumbu or in other parts of Pharak region. Alternatively, if they select the Himalaya CFUG’s privileges, they can log many trees to produce timber with relatively low royalty rate than in the park. So far Thumbuk people enjoyed both facilities and they want to continue the existing practice. Thumbuk and Tawak people are also in the Himalaya CFUG executive board and share the role and responsibility of the Himalaya community forest management and governance. The Monzo people however had no official complain on Thumbuk people having dual privileges.

Second, Himalaya CFUG had issued a *thal* logging permit to one of the residents at Thumbuk in July 2011 for building a new house. The SNP range post of
Monzo issued a twenty-four hour’s warrant letter to the Himalaya CFUG chairperson to be present at the park post and justify the case to the park’s gamescout. This letter from the Monzo range post was an unusual case and that upset the Himalaya CFUG members. The letter raises several questions. It seemed that the park was interfering over the decision of the CFUG thereby raising doubts over CFUG’s autonomy. Secondly, the letter was too harsh and antagonizing over the sovereignty of the CFUG’s self-governance status. Thirdly, the range post has only gamescouts and they never used to issue such harsh letters. Even if the Chief Warden wrote such letters to the CFUG, it would have been something to think about.

Third, the SNP Ranger Suman Subedi took the constitution and operational plan of the Himalaya CFUG a few years ago for revision, but he did not return them back. The Himalaya CFUG did not have a copy and operated in absence of its guiding documents for at least the last two years. SNP had taken the initiative to revise the constitution and operational plan of the Himalaya, Kongde, Pemacholing and Dudhkunda CFUGs in 2011. The initiative was taken after CESVI’s forestry project had shown interest on it and at the time, the relationship of the SNP, BZ and CESVI did not go well (please see chapter 9 for details about CESVI project). Since the five year term of all of the nine CFUGs of the Pharak region came to an end in 2009, Sagarmatha National Park initiated to revise the constitutions and operational plans of four CFUGS, namely Himalaya, Kongde, Pemacholing and Dudkhunda CFUGs in 2011. The Assistant Warden of the park called executive committee and annual general meetings of the four CFUGs individually at different time periods. He first explained that the operational plans and constitutions of the CFUGs need to be revised and any comments and suggestions from users were
welcomed. More and detailed comments were asked for during the AGM held later. General and specific comments received during those two separate meetings were incorporated in the draft. The drafts were shared with respective CFUGs a year later in 2012. Once comments of each CFUG are included in the final draft, the park, Chaurikharka Buffer Zone User Committee and CFUG will sign a tripartite agreement for another five year. The meeting expenses, stationeries and field allowances for the park staffs were borne by the SNP/Buffer Zone Management Committee.

In the process of revising the constitution and operational plan, although the Assistant Warden had initially informed the Himalaya CFUG that the CFUG members have to accompany the park staff to collect the baseline data in the community, this did not happen in reality. The SNP game scout collected baseline data but he visited only a few houses randomly. When Himalaya CFUG Chairperson Dachiri Sherpa asked the game scout to show him the data file, he refused. Then the chairperson became skeptical and suspicious about the data collection process. It might not have been so if the former Assistant Warden had not used the Himalaya CFUG members as an instrument in the Kongde Resort and trail construction dispute. Over the issues of the Kongde resorts, park claimed that it was park’s land at the beginning. But, since the case became complicated, park started to say that that was Himalaya CFUG’s land and case. Such double standard of the park authority had deteriorated the relationship between the park and the Himalaya CFUG and also the Khumbu community. The Assistant Warden also asked that two user members from one CFUG has to go for patrolling to Kongde during the trail construction from Thame to Kongde, but only Himalaya CFUG members and the park staff were
present. As a result, the Himalaya CFUG members became enemy of resort owners who built resorts at Kongde.

The Kongde CFUG Treasurer Nuru Zangbu Sherpa and many other members during its Annual General Meeting held on July 7, 2012 highlighted that,

“The previous constitution and operational plan of the Kongde CFUG made by the park had remained only in shelves and did not get implemented. The Kongde CFUG people demanded that these two important documents should contain local people made rules and interests rather than the ones imposed by the park. They further stressed that the local people should own the documents and have a sense of full “ownership” and only then that would be implemented. The Treasurer also said that we have bitter experience of park omitting our proposed rules, might be due to limitation of the park’s law, but we do not know about that and anticipated that that should not happen for this time. He also warned that if that happens again, their relationship with the park might fall apart. Let the rules of the constitution and operational plan be people-centered and one that protects their rights. The issues discussed and suggestions made here today in the AGM must be reflected in the revised constitution and operational plan. In order to have an effective and practical operational plan and constitution, they should be based on community’s interest and be democratic. The local community has the rights to conserve, use, manage and govern the local forest. It is the time of “bottom-up” but not “top-down” governance and management system era. The overall process of constitution revision should be inclusive”.

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The SNP representatives clarified that they are just revising the constitution and operational plan as per the need of the people. In order to avoid confusion and misunderstanding about the constitution, they came to the village to consult with the local people. CFUG is a shared responsibility of the government and local community. Government however, has the policy to hand over community forest to local people and make them responsible for conservation and utilization.

Fourth, one of the SNP gamescouts has been staying in previous office premise of SNP at Thumbuk for more than fifteen years without paying any rent. His long-term residency at Thumbuk has been a problem to the Himalaya CFUG. First of all, he is suspected to be involved in various illegal activities, which led to corruption. For example, he was believed to be acting as a watchman when one of the immigrant lodge operators was smuggling thal from Himalaya CFUG to Thumbuk in 2010. He might have been working as a middleman between army in-charge of Jorsalle post, buffer zone user group chairperson and the smuggler in the process of smuggling.

The Himalaya CFUG members also sensed that he had been manipulating the immigrant residents to oppose the proposed annual forest use fee of Rs. 5,000 (US $ 63) per household. He was accused of grouping and brokering the immigrant community not to accept the proposed annual fee. One of the reasons for that was that he himself runs a teashop at Thumbuk and he did not want to pay the annual user fee. The issue was hotly debated during the Annual General Meeting of the Himalaya CFUG and Khumbila BZUG publicly on July 16, 2011. The local people had requested the Chief Wardens and DNPWC officials to transfer him from the Monzo Range post since long time ago, but he never got transferred, because he pleases seniors and bosses with high end treatment at
his residence. He understands the local politics, people and issues, and manipulates that as he wishes. Whenever the park gets a new chief warden, administrator or a guest from Kathmandu, he entertains and briefs about all the local politics. He later acts as an agent of the higher officials on inappropriate activities and plays over the Himalaya CFUG members and Pharak CFUGs. Therefore, the Himalaya CFUG, Kongde CFUG and buffer zone user groups desperately wanted him to be transferred from the Monzo post. The long-term stay of one particular gamescout at Thumbuk SNP premise is affecting the relationship between the park and the Himalaya CFUG and rest of the Pharak CFUGs drastically. It has become a public concern and his further stay in the Monzo post will deepen the conflict between park and CFUGs.

6.2.1 Tree Felling Permit System in Buffer Zone CFUG

After SNP took the jurisdictional role of overseeing the Pharak buffer zone community forest user groups from the DFO office, the Pharak CFUGs realized that tree-felling process has become easier. All the buffer zone CFUGs retained tree stamps and handled on their own for the last two terms of CFUGs. However, the Sagarmatha National Park Buffer Zone through promulgation of the Internal Working Procedure 2067 (2011) decided to withdraw all the seals of the Pharak CFUGs, and park staff will use only one seal to mark trees for logging in the Pharak region from 2012. Instead of CFUGs, SNP will retain the seal and stamp all trees at one go by its staff. The park made the decision without consulting with the community forest users in all of the nine CFUGs. The park’s unilateral decision of issuing the logging permits of all private forest holders and stamping trees of private forest and community forests at one go is a new
policy development and practice within the institutional arrangement of park, buffer zone and community forest user groups. What kind of implications and impacts this practice will bring in the future is yet to be observed. However, one indicating policy implication may be that the park is trying to keep more control over Pharak’s forests (private, community and religious forests), or re-centralize power. The seal controlled by the DFO staff in the Panchayat regime had left a bad experience in the Pharak region as discussed earlier. From the principle of community participation in forest management and governance perspective, this is obviously not a good decision. The withdrawal of timber stamp at the time when the Pharak community protected forests are growing impressively is suspicious. This is because government officials and foresters are particularly interested to rule over the forest resources and communities. If SNP keeps more control over the Pharak forests, then the communities feel their resources are dispossessed and they may not support conservation.

Though the users of the buffer zone CFUG have felt that buffer zone has no role to play in community forest and private forest governance, they take part in declaring protected forests, help fine violators of protected forest rules and issue recommendation letters from BZUG to obtain logging permit from SNP for private forest. The park delegates a team of staff to verify the application and land ownership rights in the field. Upon verification, the park staff stamps the trees. The Dudhkunda, Red Panda and Mushey CFUGs comment that SNP has neither supported conservation of forest nor interfered with conservation efforts. In addition, there is also confusion at the community level as some of the user committee executives still fear that CFUGs will later be incorporated into the national park.
The majority of interviewees at Lukla did not know what role the SNP staff stationed at the Lukla Range post plays. They think that regular forest patrolling, coordination with CFUGs and BZUGs, assisting in forest thinning and pruning may be their role. In general, they are quiet and do not have much interaction with the local forest users. The park staffs there have helped the CFUG with occasional patrolling and settling timber related dispute. However, they have also shown interest in partnering with timber smugglers. Apart from that there is no interference over CFUG’s management and governance. However, the Lukla CFUG has the autonomy to make decisions.

6.3 Difference Between CFUGs Being Under DFO and SNP Jurisdictions

Although the Ministry of Forests and Soil Conservation (MFSC) is the parent Ministry for both District Forest Office (DFO) and Sagarmatha National Park (SNP), there are some differences when CFUG works under the DFO or SNP pertaining to their rules of governing community forests. One specific difference is that DFO rules give total autonomy to local community to manage and govern forest, whereas SNP and BZ rules attempt to maintain collaborative ties, retain strict and more controlling role from the park administration. The buffer zone CFUG constitution becomes effective only after SNP, BZUC and CFUG jointly sign a tripartite bond in the constitution. Secondly, DFO hands over tree logging seal to individual CFUGs but SNP withdraws the seal and uses only one seal for all of the nine CFUGs in the Pharak (effective from 2012). This is in fact re-centralizing forest governance power in decentralized buffer zone governance system in the SNP. Jesse C. Ribot, Arun Agrawal and Anne M. Larson interpret this kind of concept is recentralizing while decentralizing authority: how national governments re-
appropriate forest resources, (Larson, 2005; Ribot et al, 2006). Third, there is a difference between how community forest and private forest are administered under SNP, DFO and DFO governance. The Buffer Zone Regulation of 1996 does not say that private forest loggers have to obtain a logging permit from the park warden. But in reality, the private forest owners are bound to obtain logging permit from SNP warden. Owners of private forest holders of Pharak have to apply to the park administration with all their land ownership documents along with recommendation of buffer zone user group and CFUG. In contrast, in areas outside of the buffer zone, the Community Forest Regulation of 1995 does not say that private forest owners have to obtain logging permit from the DFO. It does however say that private forest owners have to notify the DFO twenty-four hours before transporting their forest products outside of their areas along with a recommendation letter from the Village Development Committee. This difference shows that park is attempting to retain more control over the governance of private forests in the Pharak buffer zone.

6.4 Technical Assistance from SNP to CFUGs

All the community forest user groups of the Pharak region including Himalaya do not get much technical and legal assistance from the park. The situation has not been better even during DFO’s tenure. The Himalaya CFUG reports that,

“We do not get much help from the park, they give some help, but they rather use us as an instrument. They show us as if they have consulted us for decision-making, but in reality, they internally make all decisions by themselves”.

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The park and the buffer zone do not have any specific plans to train the CFUG members on forest, wildlife and bio-cultural diversity management. The park authority only coordinates Himalaya CFUG for forest patrolling and fails to provide technical and legal training on forest management, governance and utilization. The local community feels that the national park authority comes at the forefront only if there are NGOs or project aid available for facilitation. The Sagarmatha National Park with its own program activities has rarely supported the Pharak CFUGs including the Himalaya CFUG.

Historically, neither the DFO nor the SNP has been active in providing technical assistance to the Pharak CFUGs. However, if these two institutions are compared and analyzed, the Himalaya CFUG is just adjacent to SNP, whereas DFO is located at two days’ walking distance. Also the park is more resourceful than the DFO in terms of human resource and finance. And it bears legal responsibility now. Therefore, the park should have been more responsive and accountable to the CFUGs. The current situation gives an impression of freedom, independence and autonomy to the Pharak CFUGs because the responsible government agency does not bother much about the progress of the Pharak CFUGs. However, conservation of forest, wildlife and natural resources being dynamic social and scientific ecological processes require timely monitoring, management and governance. This might need research on forestry, wildlife, socio-economics, culture, tourism, climate change and so forth.

6.5 Conclusion

The community forest management under the Forest Act of 1993 and Forest Regulation of 1995 has more autonomy than that of the National Parks and Wildlife
Conservation Act of 1973 and Buffer Zone Regulation of 1996. The local communities and indigenous peoples solely represent community forest governance institutions. They have the rights to issue or reject tree-felling permit, make rules pertaining to forest resource conservation and management and operate its own budget and program activities. In addition, each of the CFUGs owns its own seal and CFUG members can handle it independently. However, the case is different under SNP’s jurisdiction. First of all, the CFUG is permitted to operate by signing a tripartite agreement between the SNP, BZUC and CFUG, whereas it is bilateral agreement between DFO and CFUG under DFO’s jurisdiction. Secondly, SNP withdraws all the timber seals of the CFUGs and uses only one seal. Its staffs rather than the CFUG members handle the seal. This is power recentralization by the park authority (Ribot, et al. 2006). Thirdly, CFUGs had full freedom to issue tree-felling permits under DFO’s jurisdiction but SNP objects if CFUG issues tree-cutting permits. In the case of cutting private forest by its owner, SNP requires recommendation letters from BZUG and CFUG. In addition, SNP staff makes field verification and seals the trees to be cut. These different bureaucratic arrangements make the tree-cutting process complicated and give the clear indication that the park authority is attempting to rule over buffer zone community forest, private forest and religious forest. Moreover, there have been occasional cases when the park staffs have shown more interest on the Pharak forest tree-felling and timber trades rather than supporting for conservation. So the park authority’s interests are over forest resource exploitation, use of power and ultimately benefiting monetarily.
CHAPTER 7
COMMUNITY FOREST: INTERNAL GOVERNANCE AND MANAGEMENT

This chapter presents a discussion of the internal management and governance issues of six of the Pharak region’s Buffer Zone Community Forest User Groups (BZCFUGs) of the Sagarmatha National Park. Moreover, it discusses the strengths and weaknesses of the Himalaya, Kongde, Dudhkunda, Pemacholing, Mushey and Lukla Buffer Zone Community Forest User Groups’ management and governance in detail. The chapter also discusses the impacts of Maoist insurgency on the Lukla community forest governance, and issues of voluntarism and the social relations of the CFUG executive members with their users. In addition, the chapter also discusses three issues: conflicts between BZCFUG and BZUG; the issue of pig farming by immigrant communities in Kongde and Lukla CFUGs and their impacts on forest conservation; and the impacts of resort construction by Thamserku and International Trekking Agencies in the Pharak region.

7.1 The Management and Governance of Himalaya CFUG

The community forest management and governance are similar in many of the Pharak CFUGs. However, the nature of problems of the Himalaya CFUG is different in many ways than that of the other CFUGs due to its shared border with the SNP. Some of the issues are institutional while some are related to the behavior and attitude of individual park staff like the game scout, assistant warden and chief warden, but both affect the achievement of conservation goals of the institutions.
The effective management and governance of the community forest user group largely depends on leadership and leaders’ ability to mobilize the users. The Himalaya CFUG was established in June 1998 under the Forest Act of 1993. It was first registered in the DFO and since the Pharak region became the buffer zone of the SNP in 2002, Ministry of Forests and Soil Conservation transferred DFO’s jurisdictional responsibility of assisting and monitoring the Pharak CFUGS to SNP in 2003. All of the Pharak CFUGs including Himalaya were registered in SNP under the Buffer Zone Management Regulation of 1996 and Guidelines of 1999 in 2004.

From 1998 to date, there have been four chairpersons in the Himalaya CFUG. Ang Kami Sherpa of Benkar, Karma Doma Sherpa of Monzo, Phurtemba Sherpa of Tawa and Dawa Tshiri Sherpa of Benkar have been the chairpersons of Himalaya CFUG in three five years’ terms. The Himalaya CFUG made considerable progress over the last fourteen years in terms of conserving and managing forest and wildlife, controlling illegal timber smuggling into the park, and stopping the logging of forest for timber and firewood. The user group makes all the decisions and rules of the community forest management. This has been witnessed from the active participation of the forest users in plantation, forest patrolling, thinning and pruning of forests, meetings and any other activities that the Himalaya CFUG has initiated. So far SNP has not interfered in the decision-making process of CFUG.

There is a significant change in the health of forest, habitat, wildlife and overall landscape of the Himalaya CFUG since the community forestry concept was launched. As a success indicator, the naturally regenerating and the planted blue pine, abies, hemlock and introduced species of Pinus patula are growing encourageingly. The
greenery has improved, different wildlife species have returned, more forest resources such as leaf litter are adequately available, and the Pharak region looks aesthetically and spiritually rejuvenating. The local farmers are happy with the availability of leaf litter for producing compost fertilizer. The community has secured decision-making power over the forest and grazing commons management. Moreover, people actively participate in plantation, forest patrolling, meetings and any other activities of the CFUG. The Himalaya CFUG also supported Rs. 550,000 (US $ 6,875) to the Monzo-khola Micro Hydro Project (MKMHP), which was the revenue generated from issuance of tree-cutting permits, fines and sales of timber. The Himalaya CFUG sold Rs. 500,000 (US $ 6,250) worth of timber, which was logged from the fire-damaged forest at Kongde in 2010. A patch of abies and hemlock forest was destroyed by fire, which might have probably started from smoke butts discarded by porters of Kongde resort (Figure 6.1). The electric power generation is the priority of the Himalaya CFUG users for livelihood improvement and conservation of forest resources.

**Figure 7.1: Secondary growth forest of Himalaya CFUG (left) and alpine forest destroyed by fire at Kongde (right)**
In spite of conservation successes in general, there is also a number of associated management and governance weaknesses in the Himalaya CFUG. The CFUG lacks transparency, accountability, coordination and a holistic vision. There are also weaknesses in leadership in terms of making decision and leading all users of the group. CFUG meetings are often held at the convenience of one or two vocal and aggressive members. Some of the meeting decisions are overruled when one aggressive member opposes regardless of good or bad reasons. The CFUG lacks codes of conduct while holding meetings. Even a young person challenges the CFUG’s decisions if she or he is not satisfied. On the one hand, there is freedom of speech, expression and democracy in the CFUG institution, but on the other hand, mismanagement and misbehavior in the CFUG meeting shows disrespect to its governing body and constitution. In some cases, user members also lack honesty and consistency towards conservation. For example, CFUG executive members felled timber for their own use but sold secretly to Thamserku Trekking Company’s chain resort construction project at Monzo. This kind of behavior has undermined the overall institutional development of community forest user group governance in the Himalaya CFUG. Though such issues are discussed in CFUG meetings and decisions are made to not issue logging permit to such members, they somehow manage to obtain logging permits after a few years. In this regard, other members of the CFUG view it as capturing of the CFUG governance by the elites.

Some of the CFUG members hold multiple positions in different institutions such as community forest, micro-hydro project and buffer zone management program. Sometimes they mix up the roles and responsibilities, including ones related to accounts. Such kind of leadership rarely succeeds in achieving organizational goals and objectives.
For example, one member is the treasurer of the Monzo-khola micro hydro project and a member of the Himalaya CFUG. He had given word to one immigrant Tamang lady that she did not have to pay zopkyok-grazing tax to the CFUG as she had made labor contribution to the electricity project. He gave this decision on his personal discretion without discussing it in the CFUG, and rest of the CFUG members came to know about the decision only during the CFUG meetings after the taxpayer informed about it. This was a careless and irresponsible behavior from a CFUG member.

The Himalaya CFUG also lacks procedural standards in the decision-making process. Some of the major decisions like issuing recommendation letters to private companies such as Thamserku Trekking regarding its Environmental Impact Assessment and micro-hydro power plant construction at Kongde were not discussed in the CFUG meetings. The member secretary had issued the recommendation letter on his personal decision using the CFUG letterhead and stamp. In the case of recommendation regarding peltric set power plant to Thamserku Trekking at Kongde, the fact came into public attention only after the park authority raised question to Himalaya CFUG Chairperson. The chairperson had to call a meeting to cancel the permission to build the peltric set power plant at Kongde. There was no communication and consensus between the chairperson, member secretary and other executive members on the issuance of the recommendation letter. It appears that there was an arrangement between the member secretary and Thamserku Trekking for seasonal trekking guide employment. Such kind of elite domination and dishonest misuse of authority also prevail in the Himalaya CFUG.

The most affirmative aspect of the community forestry system in Nepal is that CFUGs can retain 100 percent of its revenue and the users have the rights to make
decision. The Himalaya CFUG used to collect a great deal of money from fines and
timber royalties. However, its board members used some of the money and did not return
it. It is suspected that CFUG members have used some of the grazing fees collected from
zopkyok farmers and it is believed that some money have been used for tea and snacks.
Since the CFUG account could not become transparent, user members to some extent lost
interest to support the CFUG, as they should have been.

Since buffer zone community forest management and governance is a co-
managed arrangement among the park, buffer zone and BZCFUG, local forest users are
expecting more financial and technical support from the park and buffer zone. However,
the park and buffer zone assistance to Pharak CFUGs remained negligible over the last
seven years in absence of facilitating agents. Pharak CFUGs used to get financial and
technical supports from projects like Sagarmatha Community Agro-Forestry Project
(SCAFP) during the initial phase of their formation. SCAFPA organized exposure visits
and provided local level employment such as working in nurseries. These activities
became an incentive to forest users, which motivated them for conservation initiatives.
There is no external agency supported project in the field of community forest after
SCAFP was phased out. The European Union assisted forestry project implemented by an
Italian NGO, CESVI has limited activities in capacitating the CFUGs. The Pharak
CFUGs including the Himalaya CFUG does not receive any financial assistance from the
park and buffer zone except the one time grant of Rs. 25,000 (US $ 313) for Himalaya
CFUG in 2008. Since, the CFUG members are not paid staffs and serve as volunteers for
at least five years, the interest for conservation is delicate. If all the users do not show
concern, then executive members can become inactive. If examined minutely, every
member of the CFUGs admits that s/he has weaknesses and committed mistakes; therefore, everyone became inactive to some extent. In a way, CFUG has become as, the saying goes, like “everybody’s responsibility is nobody’s responsibility”. Indeed, it is everybody’s responsibility to conserve, manage and use the forest resource sustainably. However, everyone wants resources but is reluctant to contribute for conservation.

One of the new political ecology actors of the community forest user groups is the immigrant community. Some are indigenous peoples from other areas and others are non-indigenous peoples. The in-migration trend of both indigenous and non-indigenous peoples continue in the Himalaya CFUG area, creating further stress on already scarce firewood, fodder and timber. The majority of the immigrants operate small-scale teashops and they make home brewery of chyang and raksi, which consume most firewood. These teashops also serve food and provide shelter to porters and Saturday marketers and they reconcile their accounts through firewood collection wages. This practice enables them to collect a lot more firewood than the local people, comparatively. Similarly, the immigrants also keep zopkyoks and they use a lot of fodders, particularly that of oak and bamboo species. Many of the immigrants are just operating teashops and make their business out of the Himalaya CFUG forest resources and market opportunity, but do not take responsibility to compensate for the resources they have used or make conservation contribution. In more direct sense, they do not have a sense of responsibility or stewardship towards the local forest and environmental resources and do not pay back equitably. In terms of participation, they attend CFUG meetings if they are invited, but every household does not attend all the CFUG meetings actively.
Ideally, the community forest management and governance should be guided by its constitution and operational plan, but it has to some extent deviated in the Himalaya CFUG. The CFUG meetings are held when one of the most out spoken members is present and cancelled when he/she is absent. Some of the decisions are made under pressure, rather than on the basis of majority and mutual consensus. Sometimes the decisions of the meetings are not implemented at all due to pressure and objection from one or two aggressive members. Some of these members also create terror in meetings and misbehave, but the majority of the CFUG members cannot take action against such a person as nobody likes to be involved in conflict. These types of members have also favored other members who violate the CFUG rules. Once CFUG decided to fine Rs. 20,000 (US $ 250) to one of the users for illegally felling young trees to make thal, the relative of the alleged person opposed and reduced the fine to just Rs. 5,000 (US $ 63) and the CFUG members suspect that he might have bribed part of the money to the park staff. Many of the CFUG members are distracted by the behavior of those CFUG members. This kind of action has also discouraged some of the user members from their active participation in the CFUG activities.

7.2 The Management and Governance of Kongde CFUG

Although there had been difficulties in institutionalizing the community user group system in the early phase of its establishment, the Kongde CFUG is functioning effectively now. The CFUG was established at the same time as the Himalaya, Pemacholing and Dudhkunda in 1998 after the first Pemacholing became defunct. Kongde CFUG has built its own office premise at Ngambu Wangma and it can
accommodate at least one hundred people for meeting. A poster of Lord Buddha, and
hides of musk deer and red panda have been displayed on the wall of the CFUG office.
As some of the local elites have large areas of private forests and have interest for
logging, the conservation of the Kongde forest became a challenge at its early days.
However, with changes in the leadership, backed up by supporting projects like SCAF and
TRPAP and the change in political leadership at the local, district and national level
strengthened the effectiveness of Kongde CFUG. Though there were some degraded
forests left during the CFUG formation period, the majority of the old-growth primary
forest had been logged and the landscape around Rimijung, Ngambuteng and Phakding
looked denuded (Rogers, 1997). Since the CFUG was established, major logging did not
take place in the Kongde CFUG. Timber sale to Nauje market was prohibited for almost a
decade. Nevertheless, some sold their lumbers to Thamserku and Sherpa Shangrila
resorts construction at Kongde and earned a good deal of money. The general perception
of the forest users in Kongde CFUG is positive about the community forest user group
system. Since the Kongde CFUG is formed, the forest has been well protected. Forest
based resources such as leaf litter for production of compost fertilizer, firewood for
cooking and timbers for construction have become easier to find than ten years before.
The local farmers, livestock herders, blacksmiths, lodge owners all feel proud of their
community forest and monastery forests. Due to CFUG imposed rules of restriction over
sales of private forest, timber outside of their own community forests and private forests
are also encouragingly growing and contribute to the overall improvement of biodiversity
and carbon sequestration. Since CFUG system was initiated, the local people can fell
trees whenever they need and the logging process has become easier than during the DFO
governance system. The local community can retain hundred percent of its revenue generated from permits, fees, fines and income from other sources and use it for conservation and development activities according to their interests and priorities. This was not the case during the DFO governance era. Since forest conservation and use rights have been devolved to the local community there has been more plantations and conservation, and less forest degradation. More importantly, the local community feels that they have the right to make decisions, change rules and regulations and has gained a sense of ownership of the local forests. In addition, they feel that they are responsible for conservation, management and governance of their forest commons collectively.

In spite of having many affirmative impacts over community forestry management and governance, there are also weaknesses and problems associated to its governance and management system. It is almost impossible to satisfy everyone in the community forestry governance system. Some of the Kongde CFUG members feel that there are also problems of nepotism, favoritism, biasness, corruption and elite domination in its institution. In addition, a few of the user members feel that the executive committee meetings are not held regularly, its decisions and accounts are not transparent, biases prevail in distribution of logging permits, richer people get more tree-cutting permits and is not being monitored, but poor people do not get sufficient permits and their logging is frequently monitored. This issue could be complained in meetings but poor people do not dare to voice such issues in public. Some people do not speak in meetings because of their family and power relations, whereas, some of the user members even complain that they do not get invitation to meetings. Inclusiveness, equitable decision making opportunities and transparency need to be strengthened in the Kongde CFUG.
### 7.3 The Management and Governance of Dudhkunda CFUG

The Dudhkunda CFUG was formed after the split of former Pemacholing CFUG in 1998 (2054 B.S.). Dudhkunda became one of the most active CFUGs in the late 1990s, a period when the degradation of forest and scarcity of resources such as timber, firewood, leaf litter, fodder and bamboo became a serious problem for subsistence agriculture farming in the CFUG. In addition, the glacier lake outburst flood (GLOF) from Ama Dablam basecamp in 1978 swept down agricultural fields, houses, livestock, SNP office located at Larcha Dhovan and many lives. The Dig Tso lake GLOF in 1985 destroyed at least 18 houses including one herder’s hut (goth) in Thamicho (Thame – Bhoto-koshi) valley, nine houses, potato field and forests of the Dudhkunda CFUG in Lhowa and Yulgnying villages (Gurung & Sherpa, 2008) (Figure 3.9). Both Lhowa and Yulgnying villages were badly affected by those two GLOFs. Some people of Lhowa and Yulgnying migrated to Tega and the upper village of Yulgnying respectively. These different circumstances, events, resource scarcity and demand motivated the Lhowa and Yulgnying people towards forest conservation. Moreover, the agroforestry project of WWF facilitated to form and strengthen the CFUG. The first term of the user committee was active as they had motivation as well as project assistantship. However, the efficiency of the CFUG decreased during the second and third terms of Dudhkunda CFUG’s executive committee as the SCAFP phased out.

In terms of possessing physical infrastructure, Dudhkunda CFUG has its own office premise. The Dudhkunda CFUG first built a one-floor two-roomed office building, with a visitor center. It rebuilt this as a two storied house in the Sherpa styled tourist
lodge in 2010 and the current executive committee rented out the building. Since then the office signboard has been removed and meetings are held in local lodges. As a result, the CFUG institutional entity is invisible. It seemed that there was a lack of coordination between the first generation board members and current leaders and a certain level of misunderstandings persisted. People living on Tega and Lhowa are on one side and people of Yulongying are on the other side and looked like two different communities. As members of one forest user group, they should be working as one community to achieve conservation and development goals. People of Yulongying think that the Dudhkunda CFUG executive committee members of Tega do not care about the forest conservation of Yulongying side, whereas the people of Tega consider that they have done enough, but the people of Yulongying are pretending to be ignorant of forest conservation matters. The first generation members of Dudhkunda CFUG feel that they had made significant contribution to establish and institutionalize the concept of community forest in Yulongying and Lhowa villages. The additional important works of the first executive committee are the establishment of the six-kilowatt peltric set to conserve forest, the visitor’s information center and the trail improvement. Acknowledging the hard work of the CFUG, WWF awarded the Abraham Conservation Award with cash prize of Rs. 50,000 (US $ 625) to the CFUG.

The Dudhkunda CFUG in general is working well, however there are few issues, which concern the effectiveness of the CFUG in the long run. The income and expenditure accounts of two different institutions, the CFUG and the peltric set management committee, are done together and auditing of CFUG has not been carried out since its management jurisdiction came under the SNP. Some of the user members
raised concern over accounts of the CFUG as financial report was not presented in the executive board meeting. This has happened as the chairperson of the Dudhkunda CFUG also held the position of a Treasurer in Chaurikharka BZMC. One person had two positions and both are unpaid or worked as a volunteer.

The secretary of the Dudhkunda CFUG Ang Nuru Sherpa presented Rs. 19,82,392 (US $ 24,780) of total income for the period of 2006 to 2011. The budget includes Rs. 770,000 ($ 9,625) grants received from SCAFP that was used for construction of the CFUG office premise and visitor’s information center. The total saving over the period was Rs. 27,312 (US $ 340). The income and expenditure accounts include the management cost of the six-kilowatt peltric set as well.

The Dudhkunda CFUG reports that there are also a lot of differences between the CFUG operated under DFO and SNP’s oversight. For example, community forest governance and management was more flexible under DFO’s jurisdiction. The local people recalled that they could fell-trees and sell timber easily during DFO’s tenure. But it is not the case under SNP’s regulations; it is more systematic and strict. However, the majority of CFUG members considered that park and buffer zone have not sufficiently interacted and supported with the CFUG users in order to improve the forest’s health and biodiversity. The Assistant Warden Bhumi Raj Upadhya acknowledged that there has been lack of monitoring from the park in the past years and assured that there will be more monitoring and supervision from the park in the future. The clause on monitoring CFUGs shall be included in the revised CFUG constitution and operational plan. The AGM of the Dudhkunda CFUG reemphasized to strictly prohibit collection of fodder and firewood from the red panda conservation area and kyakshing. If someone violates the
rule, Rupees 5,000 ($63) will be fined. If the same person repeats the mistake for the second time, the incumbent shall be sent to national park office for further legal action. The AGM of the Dudhkunda CFUG reviewed their progress and emphasized that the buffer zone management program should allocate adequate budget for the community forest activities.

Figure 7.2: Annual General Meeting of Dudhkunda CFUG, Yulngying in July, 2011

7.4 The Management and Governance of Pemacholing CFUG

As the majority of forest users of this CFUG rely on agriculture, forest is incredibly important for production of compost fertilizer, fodder for cattle, firewood for energy and lumber for building. However, most of the old-growth forests have been felled prior to the formation of the CFUG. Some of the village elites indiscriminately felled trees in their community forests and traded the timber in Nauje market for more than a decade. Moreover, the timber of Pemacholing CFUG was also logged for reconstruction of Tengboche monastery in the 1990s. Secondly, some of the public forest was allegedly registered as private forest during the government land survey (napi) in 1994 and logged later. Since the old-growth forest of the CFUG was badly degraded at the end of the 1990s, the subsistence farmers faced scarcity of leaf litter, fodder and firewood. Because of the CFUG formation, now the forest felling has been controlled and
secondary growth forests are regenerating impressively. Though the CFUG initiated plantation program for more than five years with the support of SCAFP, the natural regeneration of blue pine species itself is encouraging. The improvement of the forest health and habitat has attracted wildlife like Himalayan black bear, common leopard and barking deer in the Pemacholing CFUG\textsuperscript{28}. The Annual General Meeting (AGM) of the CFUG in 2011 proposed that the forest on the Pamu ridge be declared as a conservation area for wilderness preservation.

7.5 The Management and Governance of Mushey CFUG

Prior to formation of the Mushey Community Forest User Groups in 2004, the Nangbuk people (Mushey in Nepali) used to go to the forest above Lomzo for collection of forest products. However, after the support of the SCAFP, the Mushey community forest user group was formed at Nangbuk, but at the same time, they lost access to Lomzo community forest. This is because Lomzo forest belonged to Red Panda CFUG and Nangbuk people have to be limited within their ward forest. Since then Nangbuk people stopped going to Lomzo forest.

Nangbuk has more than a hundred year old ICCA forest extended over an area of 100 hectares conserved by the local community for more than a century. In addition, the Nangbuk community has planted thousands of blue pine, \textit{Pinus patula} and \textit{abies spectabilis} species in the open space of their community land (Figure 6.3). The Nangbuk monastery alone has more than 210 ropanies\textsuperscript{29} (10.68 hectare) of forest and barren land behind Nakchung village. Moreover, there is barely any household that has not planted more than a thousand seedlings on their private land in Nangbuk. Dawa Tshiring Sherpa,
proprietor of the Himalaya Lodge Lukla alone has planted more than 10,000 seedlings since the 1990s. Many of his trees are matured enough to cut for construction. Similarly, Kili Pala of Dungde has more than 15,000 trees on his private land. Most of the Nangbuk households are almost self-sustaining in forest products such as leaf litter, firewood and fodder. A detailed account of Nangbuk ICCA forest is given in Chapter 2.

**Figure 7.3: Private and community planted blue pine forest of Nangbuk (left) and Mushey CFUG chairperson and users (right)**

Nangbuk is a model village where the community has preserved their community forest since ancient time for sustainable use of leaf-litter to make compost fertilizer. The community forestry user group approach has given additional impetus to their ancient community forest. The extensive private plantation is another reason to applaud the community. There is no particular conflict between the ICCA forest management and governance and the community forest as both the managers and users are the same community. The size of the community forest, including 100 hectares of ICCA forest, is 225 hectares as mentioned earlier. The ICCA forest is located on the northeastern side of Nangbuk village, whereas most of the community forests are located on the western and southern sides of the village. However, the ICCA forest is not specifically mentioned in
the constitution of the Mushey CFUG constitution of 2061(2004). In comparison to other CFUGs, Nangbuk CFUG has less issue in the community forest management.

7.6 The Management and Governance of Lukla CFUG

Lukla was one of the oldest, remote and isolated Sherpa villages in the Pharak region before construction of the Lukla airstrip in 1964. Lukla also had a purely homogenous Sherpa settlement, but now it has become the largest Pharak village, resided by heterogeneous communities of indigenous Sherpa and immigrant Tamang, Rai, Nepali and other minority communities. Lukla is the first Pharak Sherpa village which has undergone rapid transformation over the last half century. The changes particularly took place after Sir Edmund Hillary built the STOL (Short Take Off and Landing) airstrip to transport construction materials for projects in Khumbu in 1964 (Stevens, 1993). Because of the successful expedition of Sir Edmund Hillary and Tenzing Norgay Sherpa to the top of the world in 1953, the remote Khumbu region gradually got promoted in Europe, America and Asian countries. After the construction of the airstrip the influx of more trekkers and mountaineers in the region soon changed the cultural landscape of Lukla. Since Lukla became the entry and exit points for tourists to Khumbu, it attracted more and more people for tourism micro-enterprises and employment opportunities. Sherpa people from Nauje, Khumjung and Thame of Khumbu villages and Tate, Sewangma, and Chaurikharka villages of Pharak gradually migrated to Lukla to make their livelihoods out of the growing tourism economy, beginning in the early 1970s. Likewise, Tamang, Damai (Nepali), Rai and other ethnic communities from lower parts of the Solukhumbu and neighboring districts also migrated to Lukla and other parts of Pharak particularly in
or after the 1980s (Tables 3.8 and 3.9). The rapid and constant growth of tourism in Lukla and beyond had developed many socio-cultural, economic and environmental opportunities and challenges over the last forty years.

The local residents and immigrant community both have built lodges, teashops and other tourism infrastructure in Lukla at an alarming speed. These people also depended on the local forest for timber and energy supplies. Tons of forests around Naabuk and Thukdingma, east to Lukla were logged for timber and firewood production. Sixty-six hectares of forest around Naabuk, between Lukla and Bom were clear-cut before 1995 (WWF, 1995). Much logging had taken place then after. One of the lodge owners recalls that he had collected more than 150 loads of firewood by himself in a day from the Naabuk forest in his early days, but it is very difficult to collect a load of firewood in a whole day now. During the District Forest Office (DFO) governance era, there was no restriction over firewood collection, even by felling trees. People could collect as much firewood as they could without any logging permits, fees or regulations. As one informant reports that it was the time of freedom for firewood collection like the Nepali proverb goes “Jasko shakti, usko bhakti” whoever has the power, s/he will gain. DFO only controlled coniferous forests, which produce lumber for construction but did not bother about broadleaved forests, which basically produce firewood and leaf litter. Blue pine, hemlock, silver fir and rhododendron were the dominant tree species of degraded Lukla forest. Even during the tenure of the Danfe CFUG between 1993 and 2002, forest degradation took place due to lumber and firewood collection. Although logging for timber took place as per the permit system, the firewood collection could not be formally regulated during Danfe CFUG’s tenure.
The majority of interviewees in the Lukla CFUG said that the CFUG governance is the much-preferred one than the DFO governance. Although the Lukla CFUG is one of the youngest CFUGs in Pharak, it is making some progress in terms of forest conservation. If the CFUG had been there since the 1990s, Lukla’s forest might not have been degraded as much as it is today. Currently, the Lukla CFUG is managed by younger generations, which include Sherpas, Tamangs, Rais and Chetris in the executive body. This is perhaps the first record that non-Sherpa people are holding the leadership positions in management and governance of the Lukla forest. Many interviewees argue that CFUG needs to be even more effective in terms of forest management, conservation and governance. There are mixed reactions about the CFUG’s performance in Lukla. Some of the critical comments about the Lukla CFUG are that CFUG meetings are not regular and they are held only in off tourist seasons, all user members do not get invitation to meetings and meeting decisions are not accessible to public. Some of the women users members are even confuse the CFUG with youth clubs. Since youths are involved in CFUG management, the users who did not have chance to participate in meetings think that the Himalayan club manages the community forest. The good aspect for forest conservation at Lukla, like all over the Pharak region, is that the natural regeneration of forest is very good. The majority of the interviewees believe that if one tree is felled, many more will grow naturally. Just proper management of the naturally grown forest can also make a difference. The climatic condition and altitude is very favorable for regeneration of forest in and around Lukla.

Since the relationship of WWF funded SCAFP with the Danfe CFUG chairperson did not go well in the late 1990s, the SCAFP nursery for Lukla went to the management
of Kemgun monastery. A nursery, which could produce more than 20,000 seedlings per year, was established in the Kemgun monastery compound in 2001, and the monastery managed it for three years. The seedlings were planted in Sorki-lho and Changdul-lho area. But in absence of fencing, only 30 percent of the plantation might have survived. As seedlings grown in nursery are sweet, cattle eat them even though they are non-fodder species.

Recently, the Child Reach Nepal, an Austrian travel company has supported to establish a nursery at Bosom village in Chaurikharka to plant trees around Lukla to address their carbon footprint impact. The nursery was established in 2009. Each trekker plants two seedlings per visit at around Naabuk, Lukla. The company brings trekkers to Khumbu every year in the monsoon season. The company aims to promote trekking tourism in monsoon season in the Khumbu region. Apart from that there has not been much effort to plant trees in and around Lukla. The land contract for the nursery operation has been signed for ten years. A few people have also planted seedlings on their private fields. A couple of houses own private forest in Lukla but comparatively much lesser than any other CFUGs and Pharak villages.

At this moment Lukla has only the kyaksing ICCA forest above the village as a remnant primary forest. Other than the kyaksing forest, there are not any matured trees left that are good for cutting. All of the silver fir and hemlock forests were cleared cut. Due to high altitude and rain shadow climate, blue pine is not available in Lukla’s forest. There are small patches of degraded secondary growth blue pine forest found below Lukla village. The construction lumber for Lukla has been supplied from Tate, Sewangma and Lhowa villages for more than fifteen years. People from Chuserma have
also occasionally sold their timber to Lukla. A piece of lumber with the size of (9X1.5 X7) feet costs Rs. 800 (US $ 10) at Lukla. One of the interviewees says that buying timber from other CFUG is very complicated, as the transportation permit has to be sought from each CFUG on the route. It is very lengthy process.

7.6.1 Lukla CFUG Governance Issues

The majority of interviewees say that the Lukla CFUG is strict in terms of making and enforcing rules for everyone except the police. One example of that strictness was seen when the head monk of the Kemgun monastery brought two loads of timber from Tong CFUG without obtaining a transportation permit\textsuperscript{30} from Lukla CFUG. The Lukla CFUG confiscated the timber even though such an act could have easily been construed as highly disrespectful. Lukla CFUG, like other CFUGs, however, is also accused of being biased in decision-making. The CFUG takes harsh action against those who do not or cannot argue, but does not take action against someone who can defend themselves or has a loud voice. But there is no bias in the issuance of timber permits. They initially charged higher fees to big chain resort construction companies for logging trees, such as Intrek and Thamserku. Since the chain resort owners opposed and negotiated, logging fee was reduced and made equal to everyone in the Lukla CFUG. So the interest of the Lukla CFUG to charge more fees to these big companies could not be fulfilled as they are powerful elites, related to local Sherpas and they also provide trekking and airline jobs and services to a few of the local people.

Apart from these social, cultural, environmental and economic issues, Lukla CFUG has other issues, which are directly related to community forest management and
governance and livelihoods of the local people. They are briefly discussed in the following paragraphs.

7.6.2 Maoist Insurgency and Forest Degradation

Although no big battles took place during the ten year long Maoist insurgency in the Lukla area, a few raids in the airport and bank took place and donation demanded from local lodges, the impact was substantial on the local society and environment. A major forest and society related problem, however, was not directly from the Maoists themselves, but rather from the Armed Police Force stationed at Lukla for the security of the airport. Nepal government deployed three hundreds armed police force (APF) to Lukla for five years (2001 to 2006). They felled at least 50 trees per day from Thukdingma forest for firewood. They did not care whether trees were young or old. They left only the branches in the forest and took the main stem for firewood. Though government had provided them fuel allowance, they did not purchase kerosene or gas and instead felled the forests. They claimed that living costs are expensive and their salary could not sustain them. In addition, they reasoned that they are stationed there for the security of people and public properties. Because of that, their stay is a priority mission and therefore, they had the privilege to freely access the resources. No one could dare to dispute this with the APF. Interviewees said that if anyone spoke against them, police would open fire or torture them. Then the police felled all the blue pine, hemlock, silver fir and rhododendron trees from nearby Thukdingma and also aggravated the Lukla forest.31 The APF also seized two ropanies of Kemgun monastery forest for the establishment of their camp to northeast of Lukla village, which are not returned yet.
Because of the Maoist conflict, there was threat from both the Maoist army and Armed Police Force to host community meetings and patrol forest from 2002 to 2006. As a result, the Lukla CFUG could not be formed until the Peace Accord was signed in 2006.

7.6.3 Lukla CFUG Rules and Buddhist’s Values

A religious practitioner in Lukla says that there is no specific conflict between the rule of CFUG and Buddhist’s value in general, instead they complement each other. Buddhist belief is that where there are forests, wildlife, lakes, springs and rivers, there will be lha (deities), Lu (water spirit) and zyptak (spirits) or forces (Wangmo, 2005). The Sherpa community believes that there are lha, lu and zyptak inhabiting in forest, trees, wildlife, mountains, lakes, rivers and boulders in and around Pharak, Khumbu, and other Sherpa territories. But they will go away if these natural settings are disturbed. Then wildlife will become extinct, water will dry up and landslides will appear. These are the cultural rules that has been embedded, mainstreamed and acculturated in Sherpa and other Himalayan peoples’ culture and livelihood through Buddhism. The Sherpa community generally understands these beliefs and pays due respects to these forces. However, this understanding is in a declining state as more and more non-Sherpa ethnic communities are in-migrating, who are predominantly Hindu and few are of Christian faith. In addition, the Buddhist values and beliefs are not taught in Nepal’s national education system, and monastic education is not recognized as formal education by the government. The conservation based principle of Buddhist beliefs interface with the state imposed education system in the institution of community forestry.
The Mahendra Jyoti Secondary School at Chaurikharka started to teach Buddhist teachings (*cho*) from classes one to five in 2008. They teach basic chants and prayers of Buddhism. Except for Yuba Barsha Lower Secondary School of Monzo, the other schools do not teach *cho*. The introduction of *cho* and also of Sherpa language classes became possible after the government introduced mother language as an optional subject in local schools in 1992 (Gurung, 2009). However, the school management committees have to find private financial sources to pay for the salary of *cho* teachers.

In spite of these diverse pressures, the Sherpa community at Lukla continues to practice Buddhism and have been reintroducing, reshaping and strengthening Buddhism and cultural tradition of Sherpa people through Kemgun monastic institution since the late 1990s. The Kemgun monastery was built in 1831 by Dreltse Donden Jamyang Chokyi Rigzin (born in 1777), a disciple of Rigzin Chokyi Gyalsten (Wangmo, 2005), was renovated in 2004 under the coordination of Mr. Pasang Dawa Sherpa (Salaka) of Nangbuk with support from the Sherpa community of Lukla and Pharak. More than 29 young monks from the Pharak region have been getting Buddhist and Thanka painting education for more than fifteen years. After the renovation and strengthening of the Kemgun monastery management and institution, his holiness Trulshik Rinpoche changed the name of Kemgun monastery to Tashi Choding monastery. The older generations of Sherpas use the original name while monks use the new name when performing prayers.

The Sherpa community of Lukla organized a Vajraguru prayer in the Kemgun monastery in 2009. The Vajraguru is the prayer of Guru Rinpoche, who taught Buddhism and consecrated *Beyuls* in the Himalayas in the eighth century B.C. This prayer was earlier once held in Pemacholing monastery, Rimijung. The Lukla Vajraguru prayer was
perhaps the biggest religious event that was ever organized in the Pharak region.

Secondly, the Lukla Sherpa community also established *Tshiring Tse Nga*, the five sister deities of the Himalayas as *Sungma* (the main guardian goddess) of Kemgun monastery of Lukla on March 2010 as per the advice of his holiness Trulshik Rinpoche. One of the five sister deities of long life *Tashi Tsheringma* resides on Mt. Tsheringma (Gaurishankar to Nepalis) and is considered the goddess of long life who bears power to increase one’s lineage, and *Jomo Miyo Lansangma* residing in Mt. Everest is the goddess of beauty, prosperity, and food (Sherpa, 2003; Wangmo, 2005). In general, though the Buddhist monastic education has not been officially recognized by the state, it has made some conservation contribution to preserve forest, water and wildlife of Lukla CFUG to some extent. Showing love, kindness and compassion to plants, animals and nature taught through monastic education system in the Kemgun monastery is playing a vital role in educating the general public and preserving the natural environment of the Lukla area. Nevertheless, this Buddhist value of refraining from violence and destruction has not been considered in the community forestry operation constitutions, plans and daily practices.

**Figure 7.4:** Statues of *Tshiring Tse Nga* (left) and Sherpa ladies of Lukla (right) welcoming the Sungma establishment procession of Kemgun monastery in March 2010

*(Photo courtesy: Himalaya Lodge, Lukla)*
7.6.4 Guru Rinpoche Cave near Lukla

A small cave associated with the life of Guru Rinpoche has been discovered below Lukla in 2006. The Lukla Sherpa community regards this as an nge (pilgrimage site) of Guru Rinpoche. It is now fenced and prayer flags have been placed. People started visiting this sacred site two years ago. One of the Lukla Sherpa woman interviewees believes that “once you visit this nge, then opportunity of visiting other nge arises”. Looking at the feature of the rock, the chief monk of the Kemgun monastery also believes that the nge is associated with Guru Rinpoche. However, archaeological and theological research may be required to prove it as an nge associated with Guru Rinpoche.

Secondly, there is about a two-meter tall Buddha statue above Lukla village connected to the Lukla kyasksing forest, where Sherpa community including Khumbu Sherpas conducts Serkyim offerings during the Lhosar festival every year. Everyone from the Sherpa community dresses in new attire and congregates at the statue site to make offerings to the village deities, who are Phari-la, Khumbila, Lukla Tsen and many others depending on the families’ client deities, and celebrate the lhosar. The statue was built from donation in 2004.

Thirdly, about a two meter tall Hindu temple was built inside the airport premise closed to the airplane parking lot by the Armed Police Force around 2003. The temple is visited only by Hindus and is very visible when landing at Lukla. It has raised several questions. First, is it technically and legally right to build a temple within the airport premise? Secondly, is not making livestock sacrifice in the temple in the Sherpa village against the values of Buddhist traditions? Third, is the introduction of a Hindu temple in
the Sherpa village appropriate? The Lukla Sherpa community lobbied by the Women’s Group stopped livestock slaughtering in Lukla in 1997. The Tamang community and Maoist party opposed the rule, claiming that meat brought all the way from Juving was not fresh. However, the Lukla CFUG adopted the rule that banned all forms of killings internally on the basis that slaughtering livestock is considered a sin by the Sherpa community.

7.7 Voluntarism and Social Relations in Community Forest Governance

Since the executive board members of the CFUG work as volunteers, they have to spend a great deal of time in organizing meetings, patrolling forest, participating in workshops and handling administrative tasks. There are no direct financial benefits to the CFUG members at the personal level. However, if they look at it from a broader perspective, their volunteer work for community forest management and governance system provides use and access rights to forest and grazing common resources, decision-making power, self-governance and autonomy.

The community forest user group systems of the Pharak region are based at ward level, and each and every forest users are related to each other. However, by the nature of community forest management and governance system, the leaderships have to make hard decisions over rule-violators, who can be relatives, neighbors, friends, elites and minority community members. If the action against violators differed according to relationship, the leadership gets blame and if equal and equitable decisions are taken, often the relatives and friends get upset and personal relationships become sour. This is the dilemma that CFUG leaderships have to face. Dantenzi Sherpa the Vice-chairperson of
Kongde CFUG fined Rs. 18,000 ($225) to his sister for violating CFUG rules. This is the way that CFUG needs to function without being biased. However, it does affect the relationship of CFUG executives with their neighborhoods and relatives. Considering these difficulties, he later resigned from the post of Vice-chairperson. Because of this burden associated with CFUG governance, many of the local forest users are reluctant to become board members or resign half way through their term. This is the social and political cost of community forest governance.

In early phase of CFUG formation, the Sagarmatha Community Agro-Forestry Project (SCAFP) provided some financial incentives for forest patrolling. Since SCAF project has phased out, there are no institutions, which provide support for forest management and patrolling activities. The chairperson of Mushey CFUG expresses his disappointments and feels that it is “worthless to work as the leader of the community forest and it is better to do personal work than CFUG social service because there is no support from anywhere else”. The buffer zone management program is the one, that has fund for conservation, but its budget activities are very limited and CFUG does not get any budget support from the buffer zone fund. In addition, there is no financial or technical support from the buffer zone user group and park institutions. The Himalaya, Kongde and Dudhkunda CFUGs have the same comments.

7.8 Conflict between CFUG and BZUG

There are certain conflicts between buffer zone user groups and community forest user groups in Kongde and Mushey CFUGs. The conflicts are basically rooted on power,
budget programs and coordination. They are briefly described in the following paragraphs.

The conflict between Kongde CFUG and Gautam Buddha BZUG is related to their roles and responsibilities. Kongde CFUG used to handle both conservation and development activities before the buffer zone was declared. International NGOs like WWF previously supported CFUGs including Kongde to implement integrated conservation and development activities. Since the buffer zone program was implemented, the role of Kongde CFUG has been confined to forest conservation only. The Gautam Buddha BZUG has taken the roles of community development, which Kongde CFUG has undertaken previously. As a result, CFUG felt that they had limited budget to work with the community, and community interest to CFUG declined.

The reason for power conflict between the Kongde CFUG and the Gautam Buddha BZUG is that CFUG considers itself an autonomous entity while BZUG considers CFUG as its branch. Though, BZUG has more financial resource to work with the local community, its budget has not been shared for conservation activities with Kongde CFUG. There is no financial support, institutional cooperation and coordination from BZUG to CFUG. However, Kongde CFUG has the authority to make decision over forest and grazing commons resources. The conflict however is decreasing as both the institutions have learned there is gain in cooperation.

Secondly, there is a conflict between the Hariyali buffer zone user group and the Mushey CFUG of Nangbuk though they are the same users in one village. The Mushey CFUG leader is disappointed with the BZUG leader for felling the electricity poles from the community forest without consultation and seeking permission. Because of the
geographical distance between Surke and Mushey villages, and the difference in forests they use, access to the two CFUGs have been established in ward number 4 in Chaurikharka VDC. In addition, the Mushey CFUG is also dissatisfied with the Hariyali BZUG as it did not provide monetary assistance to CFUG and did not invite them to the annual meeting of Hariyali BZUG.

7.9 Pig Farming by Immigrant Community

Immigrant communities collect lots of firewood in Kongde CFUG for several reasons. One is pig farming, which is concerned to alcohol production. These immigrants farm a large number of pigs at Toktok. Alcohol residue is the main feed of pigs, which require lots of chang\textsuperscript{32} and raksi\textsuperscript{33} production. They produce these breweries at their own homes and also buy the alcohol residue from villages in between Phakding and Thumbuk. This brewing requires plenty of firewood creating more pressure on forest. Furthermore, trekking agencies in Kathmandu complained that Toktok pig farms produce bad smells. Pig farms are exposed to trekking routes and do not look attractive aesthetically and hygienically. The local community reports that there is also pig transmitted viral diseases, which infect the eyes of children. First the eyes swell and then the children get fever. Pemacholing monastery monks tried to stop the pig farming and slaughtering in the village, but due to pressure from Maoist party cadres, could not enforce the ban. The local people also gave option to farm jersey cows instead of pigs. Jersey cows produce a lot of milk and since the region is a tourist area, milk has a good market but less negative impacts. In general, immigrants farming pigs at Toktok have become a chronic problem for community forest management and governance in the Kongde CFUG. The Kongde
CFUG AGM gave opportunity to everyone including the pig farmers to express their views about pig farming and firewood collection tax. One of the immigrant community representatives said that if forest use tax has to be paid by outsiders, the insiders should also pay equally. However, this argument stands against the local people’s conservation contribution, which they made since their ancestral period. The SNP Assistant Warden Bhumi Raj Upadhya suggested that the immigrant forest use membership with the levy of Rs. 5,000 (S 63) should be taken positively. This is a conservation contribution to local forest users rather than a discrimination against them as outsiders. The immigrant community of Toktok village finally stopped pig farming in May 2012. However, a few of the families have started to farm goats after they gave up the pig farming, which is also not very compatible with Sherpa community and Buddhism as they get slaughtered too.

Secondly, the immigrant community of Lukla also farms pigs despite objections from the Sherpa community. Tamang and Rai peoples have farmed pigs on the land of Nangbuk’s Ang Dorje Sherpa at Lukla. The entire Sherpa community of Lukla, including the Biswo Shanti (World Peace) NGO has tried to stop the pig farming for the last ten years, but have not succeeded so far. Now, Rais have bought land at Lukla, and pigs are likely to be farmed. The Lukla CFUG, Himalayan Club and woman’s group have not been able to stop the pig farming and slaughtering at Lukla.

7.10 CFUG Financial Management Issues (Transparency and Accountability)

None of the Pharak Buffer Zone CFUGs’ accounts have been audited for more than six years since the DFO handed over the overseeing role of the Pharak CFUGs to the SNP in 2003. Most of the Pharak CFUGs’ constitutions mention that SNP will appoint an
auditor to audit CFUGs’ accounts, but SNP failed to oversee this responsibility for the last eight years. Moreover, the CFUGs could not hire individual auditors due to burden caused by fees. If all the CFUGs could have reached a consensus and hire an auditor jointly, the auditing fee could come down to an affordable level, but this did not happen as there is no alliance among the Pharak CFUGs. The situation could have been different if the CFUGs were made responsible for auditing their accounts on an annual basis. The regular auditing of CFUGs’ accounts could have made better impacts on strengthening the institutional capacity, maintaining transparency and gaining community support from the CFUGs.

In addition, the signatories of all the CFUGs’ bank accounts have not changed from the previous committee to the recent committee even during their five years’ tenure. The Pharak CFUGs could not change the signatures of their bank accounts in absence of the SNP’s recommendation letters. The local people report that the Chief Warden hardly stays in the park office and most of the time he is out in Kathmandu. Literally all the CFUGs failed to make regular follow up to the park office to get the recommendation letter and change the signatures in the bank accounts. As a result, all the CFUGs could not operate their accounts in bank, and most financial transactions occurred personally and in cash.

The Kongde CFUG for example has neither drawn the savings of the previous committee, nor deposited the income of the currently outgoing committee over the last five years. The net profits earned out of the timber sales is Rs. 342,965 (US $ 4,280) after deducting the cutting and transportation cost of Rs. 652,410 ($8,150) from the total sales of Rs. 995,375 ($12,440). All the savings are on credit, and the collection and handing
over of the account to the new executive committee is due with the outgoing executive committee. This situation is prevalent in all of the nine CFUGs of the Pharak region.

The Lukla CFUG does not have much logging royalty in its treasury, because it does not have matured trees to issue tree-felling permit. However, it does have firewood collection permit fees as their major income. The Lukla CFUG collected Rs. 350, 000 (US $ 4,375) from issuance of firewood collection permit in a single day in 2010 when it issued 700 permits at the rate of Rs. 500(US $ 6) per permit for the two weeks’ season. The total annual income is approximately Rs. 700,000 (US $ 8,750) just from firewood permits. It can also have other income from fines and sales of seized lumber. Like other CFUGs, the account of the Lukla CFUG has never been audited and its financial reports have not been shared to its users since it was first formed in 2002. The user members suspect that there might be financial irregularity prevalent in Lukla CFUG. No one knows how much money was collected annually and where that has been spent. User members however have not yet raised the question as their relation with the CFUG executive can go sour. None of the interviewees can recall if any Annual General Meetings of the Lukla CFUG was ever held and the financial and progress reports were shared publicly. The lack of transparency and non-participatory governance of the executive committee disappointed the users. However, it is also the responsibility of the users to monitor or check for the financial and technical accounts of the CFUG. The users have constitutional rights and responsibility to raise question on such an issue. However, in absence of appropriate facilitation, monitoring and evaluation of the CFUG activities, transparency of account still remains unresolved in Lukla CFUG. The oversight role of SNP and
BZUC, who jointly signed the CFUG constitution and operational plan as a tripartite agreement, seemed ineffective in this regard.

7.11 Resort Construction and Timber Use by Chain Resorts

There is a growing competition among a few of the Kathmandu based trekking agencies like Asian Trek, Intrek and Thamserku Trekking on building chain resorts in the Pharak and Khumbu regions since the last decade. All of these chain resort construction projects have created social, economic, political and environmental problems at the local level. Such projects are problematic as they use only certain people as employees, and create stress on environment as they extract natural resources such as forest, sand, stone, water and earth. The Thamserku Trekking Company’s resort construction at Kongde and Monzo has been a matter of concern as they used only one or two executive members of the Himalaya CFUG in exchange for trekking guide job offers. This fact has been witnessed from issuance of the no objection letter to the Thamserku Trekking Company to build the Kongde Resort without discussing the case in the CFUG meeting. DNPWC and Thamserku Trekking used the recommendation letter as a reference to their Environmental Impact Assessment (EIA) report for building the Kongde resort at an altitude of 4,200 meters in 2004. The resort was built at Kongde inside the national park boundary, which later became controversial due to land ownership rights and was disputed through court cases. The controversy finally ended after the Commission for the Investigation of Abuse of Authority (CIAA) authorized the District Land Revenue Office to cancel the land ownership rights of Thamserku Trekking and restore the land.
ownership to the government in 2011. The decision was taken, as the land possessed by the proprietor of the Kongde Resort was found fake (Shrestha, 2011).

Secondly, the Himalaya CFUG secretary, who also works as a trekking guide for the Thamserku Trekking Company has given the permission to collect sand from the nearby rivers for the resort construction project (Figure 6.5). The decision was made on his personal basis rather than institutionally. The Himalaya CFUG’s members estimate that thousands of cubic meters of sand from the Himalaya CFUG’s rivers might have been used for the construction of the Thamserku chain resort at Monzo in 2011. But there are no specific official records of how much sand has been taken to the hotel construction project. The Himalayan CFUG members refused to give sand collection permission to Thamserku Trekking even when the Buffer Zone Management Committee chairperson from Namche had made phone calls to the Himalaya CFUG members, but later the CFUG secretary verbally permitted the collection of sand ignoring the community’s disapproval and he held all the transactions privately. The CFUG secretary disclosed that he had retained the money of 400 tin of sand. The fact came to public only after some members of the CFUG questioned about the sand revenue in the CFUG meeting held in June 2011. Some of the Himalaya CFUG user members have the feeling that the CFUG rules become inactive when the executive members of the Himalaya CFUG get trekking employment in Thamserku Trekking. The CFUG rules become active if an ordinary user member wanted to have tree-felling permit or any support from the CFUG. For example, Thamserku and Intrek resorts construction at Monzo did not require any logging permits. The CFUG user members who logged timber for their own use were sold secretly at a higher price. Such resort construction projects created short-term timber market at the
village and created pressure on forest resources, and social and political tension in the community. The members who sell their timber to such companies are usually the village elites and they mostly benefit from such trade. As some of the Himalaya CFUG executive members hold their positions in CFUGs until the hotel construction project gets completed, some user members suspect that there is secrecy and vested interest among the CFUG leaders.

Figure 7.5: Resort construction exploits natural resources in Himalaya CFUG, 2011

It is fair to say that the Himalaya CFUG to some extent has become a favorable ally of some of the private trekking companies, but it is an unfavorable entity to some of the poor and voiceless local people. It indicates that the decision taken by the CFUG executives are not equal, equitable and transparent. Over the last five years it seems that the Himalaya CFUG members have been taking decisions on personal and ad hoc basis rather than democratic, institutional or legal basis. In a way, the Himalaya CFUG lacks institutionalized decision-making system, transparency, accountability, honesty and equity. The Himalaya CFUG worked in more systematic and professional manner when SCAFP was assisting, before the buffer zone was declared in 2002, but after the project phased out, neither the SNPBZ nor any NGOs came to assist or monitor any of the
Pharak CFUGs including Himalaya. Therefore, CFUGs have become careless and function on their own with both positive and negative consequences.

Secondly, the Sherpa Shangrila resort private limited construction project at ward number 5, Zomphute village has been registered as a new forest user in Kongde CFUG in 2011. The resort construction is going on and there has been some debate among the Kongde CFUG members about the use of timber by the resort. Some of the user members questioned the executive body of Kongde CFUG about the timber use by the resort. Kongde CFUG issued tree-cutting permit only for three trees, and the remaining lumbers were bought from Gyuphete, Chuserma and Rimijung villages. Six households have sold timber to the Sherpa Shangrila resort from ward number 5 and 9. The Kongde CFUG has maintained the database of timber sold to the resort and has no objection for the timber bought from other CFUGs as it helps save the forest of Kongde CFUG, although at the cost of other regional forests. The chain resort construction projects in general raise many concerns at the grassroots level, and the local communities are scared of these developments.

7.12 Conclusion

The Community Forest User Groups of the Pharak region, particularly the Himalaya, Kongde, Pemacholing and Dudhkunda, which are fifteen years old, have made considerable progress in terms of regenerating the secondary-growth forests, improving habitats, forest biomass and greenery. Secondly, although five of the CFUGs in lower parts of the Pharak region were formed only in 2002, the levels of conservation awareness amongst the local communities are encouraging. The efforts that the forest
users have made to regenerate forests on their private land and community forests are remarkable. Moreover, some of the CFUGs like the Mushey, Lukla and Red panda have preserved their centuries old ICCA forests successfully.

The community forest management and governance system under DFO had more autonomy than that of SNPBZ. The institutional arrangement of community forest management and governance under the rules and regulations of the SNPBZ has the characteristics of co-managed governance structure. The case study of the Pharak buffer zone community forest user groups show that the SNP and BZ as collaborating partners need to play more active and positive roles towards forest biodiversity conservation in the Pharak region. In lack of their regular financial and technical assistance, monitoring and collaboration with the Pharak CFUGs, various management and governance issues exist in the Pharak CFUGs. Most of the issues are similar in many of the CFUGs and a few of them are different in some of the CFUGs. Timely addressing of these issues is critically important in order to achieve the conservation and development goals sustainably.
CHAPTER 8
WILDLIFE ECOLOGY AND ITS GOVERNANCE

This chapter discusses wildlife ecology and its governance in the Buffer Zone Community Forest User Groups (BZCFUGs) of the Sagarmatha National Park. It describes major mammal species and some bird species of the BZCFUGs, their population dynamics and interdependence on each other for survival. It also discusses the changes and impacts on wildlife ecology that has been brought by the intervention of different conservation governances at different time periods in the Pharak region. The chapter also analyzes the role of Sherpa community in wildlife conservation through their religious and cultural values and belief system. It then discusses the depredation of crops and livestock by wildlife, the compensation scheme that the Nepal government has proposed for such losses and possible reasons for the observed increase of wildlife species in the Pharak region over the recent years.

8.1 Wildlife Ecology of Pharak in DFO Era

Although protection of wildlife was the District Forest Office’s mandate and responsibility, not much attention seemed to be paid to wildlife conservation, habitat protection and species conservation under the District Forest Office (DFO)’s forest and wildlife governance between the decades of the 1970s and 1990s. Only forest management and governance were the primary interests of DFO. If wildlife protection had been the priority, forest act could have mentioned that, and DFO would have been cautious while issuing logging permits, and halted constant degradation of habitats and
ecosystems. The destruction of the wilderness, old-growth primary forests and the natural environment during DFO governance has been the major cause for disappearance of the key wildlife species in the Pharak region. Poaching and smuggling might have occurred multiple times during the DFO governance as they did not have enough human resource to monitor wildlife poaching\(^{34}\).

Secondly, the government did not have any policy that required them to work with the local communities on wildlife and forestry in the Panchayat era. Understaffed DFO could not monitor wildlife from the distant district headquarters. As a result, species like red panda, Himalayan black bear, common leopard, barking deer, musk deer and Himalayan langur lost their habitats and their population decreased drastically, possibly aggravated by poaching. Since forest logging and deforestation escalated in the 1970s and the 1980s, Nepal government promulgated Forest Act of 1993 and Forest Regulations of 1995 to engage local communities in forest management (Ribot, et al. 2006) and governance. Although wildlife conservation might not have been the priority of government while initiating community forest governance, the impact of community forest has been considerable in conserving wildlife in the Pharak CFUGs.

**8.2 Wildlife Ecology and its Governance in BZCFUGs, Pharak**

Although sustainable use, management and conservation of forest resources and biodiversity are the main objectives of the CFUGs, wildlife conservation specifically does not seem to be prioritized as highly important. However, wildlife population and species diversity in the Pharak CFUGs, other than the red panda, are increasing as a by-product of forest conservation and habitat improvement. Some of the rare and
endangered species such as snow leopard, common leopard, red panda, musk deer, Himalayan black bear and Himalayan langur have reappeared since the community forest management and governance was initiated (Sherpa, et al. 2008). In addition, the delineation of private forest tenure, particularly after the government cadastral land survey (napi) in 1994, also helped improve the habitat and environment of CFUGs considerably. The napi determined ownership and tenure of common property forest, private forest and monastery forest. The common property forest became community forests after CFUGs were formed in the late 1990s. Since then, wildlife like red panda, black bear and common leopard have returned to the Pharak community forests and is becoming more common in the Pharak region.

Although the community forest user groups conserve wildlife since they regard the wildlife as zyptak (spirits of forest)\textsuperscript{35}, they do not have rights to make management decisions regarding this. In addition, this religious and cultural belief system has not been recognized by the government’s conservation policies and laws. The Forest Act 1993 and Forest Regulations 1995 do not mention about the cultural and religious rights and interconnection between local communities and indigenous peoples with forest. There is no legal and policy base to interrelate Sherpa culture, Buddhism, wildlife, forest and biodiversity or bio-cultural diversity under the umbrella of Forest Act of 1993 and Forest Regulations of 1995. The real danger is that if the younger generations are not given the religious and cultural education and recognition, the traditional belief system will diminish as most of the people belonging to older generations have aged out. The younger generations, who conserve forest and wildlife, are influenced by the government’s nationalization policy, Hindu religion embedded in school education

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system and utilitarian values, rather than non-violent Buddhism and cultural awareness, understanding and values. This is in fact a great threat for sustainable conservation of wildlife, forest and biodiversity in the Pharak buffer zone community forests.

Some of the incidents that have occurred in different CFUGs over the last decade, and SNP’s reaction on those incidents indicate that the current forest and wildlife management and governance under the act of Ministry of Forests and Soil Conservation’s Department of National Parks and Wildlife Conservation (DNPWC) do not give cultural and religious rights to local communities and indigenous peoples including the indigenous Sherpa community of the Khumbu and Pharak regions (Anaya, 2009, Stevens, 2010b). For example, a red panda was found dead at Rangdok-khola river bank of the Himalaya CFUG in 2009. The Himalaya CFUG had to report the incident to the park office and the park staff took the dead body to their headquarters. The CFUG could not keep or cremate the dead body though that was protected by the user group.

Similarly, a tahr had died at Banker after falling from a cliff. The Assistant Warden Birendra Kandel suspected the CFUG members for its death. The park has a legal process for disposing the dead wildlife. All the details of the accidents have to be officially recorded and then the animal is buried. From the Sherpa cultural and Buddhist perspective, however, there are procedures to cremate dead animal. If the CFUG has the ownership rights and is entrusted to cremate the wildlife, CFUG might offer a religious rite and give offerings for its eternal peace and rebirth or reincarnation. However, wildlife biodiversity conservation through western scientific idea and decentralized BZ community forest management system under buffer zone regulation 1996 do not recognize this perspective. As a result, these two different perspectives interface at the
institution of community forest management and governance system. Although the BZCFUG concept devolves decision-making power to the local community, the Pharak CFUGs’ constitutions and operational plans do not address the relationship between nature and culture conservation. CFUG constitutions do not address this core principle of conservation values and belief system through cultural and religious perspectives. Although the CFUG constitutions are said to have been made by the local community, they were technically and practically made by non-local DFO or SNP officials in facilitation of Sagarmatha Community Agro-Forestry Project (SCAFP).

Though the Pharak CFUG members feel that they should have the right to make decision about the wildlife they protect in their community forests, they think that they do not have the right in practice. In practical terms, if a poacher is to be arrested, it is difficult to do so without armed force. Even if a poacher is arrested, CFUG does not have the authority to judge the case and decide to fine or send the culprit to sentence. In addition, if the poacher has to be jailed then there are no facilities for jailing at the CFUG level and there are no legal mechanisms developed to send the poacher to district jail by CFUGs. If poachers are local people, they can give social punishment in the CFUG, but mostly the musk deer poachers in the region come from Dhading district36. Therefore, CFUG members feel that it is risky and dangerous to handle the wildlife and poacher’s case in the CFUG. As a result, wildlife is a less concerned resource of community forest user groups. However, the CFUG members are interested to conserve red panda and promote it as a tourism attraction. The CFUGs have not discussed and planned to promote other wildlife as a tourism product in the Pharak region. The younger generations view the issue from a utilitarian perspective rather than its cultural and
religious significance. This change, in fact, is an outcome of western science based central government imposed conservation policy and influence of power centralized governance, rather than decentralized and Buddhism based practice of forest conservation, management and governance.

8.3 Diversity of Wildlife Species in the Pharak CFUGs

The change of forest governance in the Pharak from traditional ownership i.e. Indigenous Peoples’ and Community Conserved Areas (ICCAs) to DFO governance then to CFUG and finally to BZCFUG has periodically made a difference in appearance and reappearance of the following mammal species in the Pharak region.

8.3.1 Snow leopard

Snow leopard (*Uncia uncia*) has long been in the mountain range of the Pharak and Khumbu regions including the Himalaya, Kongde and Lukla CFUG areas. Agropastoralists of Monzo and Rimijung had spotted snow leopard at Thamserku, Kusum Khang Karu and Kongde basecamps, Thakchok and Chengma areas at different time intervals since long time ago (Sherpa, 2000). This cat species preys on livestock and wildlife like Himalayan tahr and musk deer (Lovari, *et al.* 2009). The population of snow leopard in the SNP seems to have increased up to four (two male and two female) in total at around 2008 A.D. (Lovari, *et al.* 2009). This could be due to an increase in the population of wildlife preys like tahr and musk deer and livestock (Lovari, *et al.* 2009). In addition, snow leopard often preys on high altitude livestock like nak and yak calves. Three snow leopard cubs were seen at Thakchok above Monzo village, outside of SNP.
border by Banker locals when they were taking their zopkyok to Thamserku basecamp in 2009. Herders at Kongde have seen snow leopard feces with tahr furs. Since the Kongde resorts have constructed the trail from Thame, more of the tahrs and musk deer have been seen at Kongde areas. The trail has served as a new easy access, breaking the previous natural barrier of steep slippery cliffs. According to agropastoralists, snow leopard depredation of livestock often increases when tahr and musk deer are around and decreases when they are away. This is because snow leopards usually follow tahr herds, and sometimes end up killing livestock when they failed to kill tahr or musk deer (Ale & Boesi, 2005; Ale et al. 2007).

Figure 8.1: Snow leopard (left) and musk deer (right) in the SNPBZ

8.3.2 Common leopard

Common leopard (Panthera pardus) is also a rare wildlife in the Pharak region. This cat specie existed in the Pharak region before the 1960s (the DFO governance era). There had been occasional cases of its poaching in Pharak for its hides before the 1970s. It totally disappeared during the DFO governance era and reappeared after 2000. Common leopard has been frequently sighted and have killed livestock in the Pharak over the last decade (Lovari, 2009). People believe it is more common today than before. This
could be related to improved habitat. The natural regeneration, plantation and strict conservation rules imposed by the community forest user groups after the late 1990s significantly increased the forest habitats. This has provided conducive environment for the existence of wildlife like common leopard to hide and hunt cattle and tahr. It is expected that there are more than four common leopards in the Pharak and Khumbu regions. Interestingly, the habitat and territory of common leopard and snow leopard overlap between 3000 to 4000 meter’s altitude in the Pharak and Khumbu regions (Lovari, 2009). Both snow leopard and common leopard were traced at Nauje, Khumjung, Khunde, Phortse, Pangboche, Thame, Thamserku, Kongde, and Mera peak range (Ale et al. 2007; Lovari, 2009; Thakuri, 2009). Common leopard has been reported as causing more damage to livestock than by the snow leopard in Pharak and Khumbu over the last decade.

Several incidents related to common leopard had occurred in Pharak, which proves its presence in the region (Lovari, 2009. A common leopard was killed by an eight year old child when it came to attack a lamb and the child’s mother at Chomgma village below Lukla in 2011. The eight year old boy hit the leopard to its head by an ax and killed the beast on the spot. The hide of the leopard is being placed in Lukla monastery. A calf was killed at Chuserma during the summer of 2011. Ngang Konjok Sherpa of Rimijung reports that he had seen three common leopard cubs at Rimijung forest when he went to collect fodder in 2011. A zom farmer of Rimijung in Kongde CFUG lost more than five cattle equivalent to Rs. 150,000 ($1,875) of value a few years back. But he did not seek to kill the common leopard because it is considered as zyinaqk according to religious and cultural belief. The zom farmer says,
“We do not retaliate against the predators because there are beliefs that if the wildlife are killed, then we may have to suffer more losses. Agropastoralists prefer to remain silent if wildlife damaged their livestock. Spread of damage message is also considered as self-humiliation”.

Therefore, agropastoralist consider it as a natural phenomenon and attempt to forget about it.

A leopard is often sighted at Geringma above Banker and has killed a few cows and calves\textsuperscript{37}. Banker locals once chased a common leopard above the village. A landslide came at the same spot a week later. Locals believe that it has spiritual power and it is a zyptak (spirit of forest). Therefore, it should be left unharmed. One of the research participants claimed that snow leopard is present at Chengma-la site\textsuperscript{38} and common leopard at Rimijung in the Pharak region.

8.3.3 Wild dog

Wild dogs (*Cuon alpinus*) have dark brown hair with long and hairy tail. They almost look like wolves. Wild dogs usually roam in a group of two to four and attack livestock in team. Both common leopard and wild dog prey on livestock, but local people have not noticed if wild dog preys on tahr and musk deer. Wild dogs are a nuisance to the livestock farmers, and local people who have very few cattle. They have a destructive hunting style. They chase cattle and one of them plays at the front, pees on its own hairy tail and splashes on eyes of cattle to give them sore eyes and make them blind. At the same time, the other one jumps at the tail of the cattle and bites from the back. This is a highly migratory animal. It roams between low-land Solu and high-land Khumbu in the
SNP. One interesting fact is that since common leopards re-appeared in the Pharak region, wild dogs have disappeared. It seems that common leopards displacing the wild dogs. Another reason for their disappearance is that zom farmers in Kyaama area of the Solu region might have poisoned and extirpated them.

8.3.4 Himalayan Black Bear

The Himalayan black bear (*Selenarctos thibetanus*) is not a new species for the Pharak region. However, it disappeared in the early 1970s following the logging of old-growth forest habitats. This specie of bear often roams in blue pine forest and eats the sweet resin of blue pine. It climbs tree and peels the bark of blue pine from top to bottom. It mostly peels up to the height of three or four branch levels and lick the resin. Such trees can die within a year. Bear is attracted to blue pine trees which are 15-25 years old (Figure 7.2). Local people collect the bark afterwards for firewood. The peeled portion of the pine trees start drying, but dripping resin from upper level makes the tree good for lighting. People traditionally cut the dried portion of the wood piece by piece at a few months’ intervals from the tree for lighting at night. Its smoke is accumulated and used to make black ink for printing tundhar (Buddhist prayer flag). This practice has been replaced by the modern conservation practice of community forest system and availability of ready-made printed prayer flag.
Figure 8.2: Bear peeled blue pine (left) and people chiseled the resin-wood for night-lamp (right)

The black bear used to damage buckwheat, corn, wheat and barley crops in the early 1970s. People have to be aware of the bears at night during the crop harvesting season. However, the problem was over since people felled most of Pharak’s ancient forests after the 1970s. The Himalayan black bear reappeared in the Pharak region in around 2004, thereby indicating improvement of forest condition in the Pharak region. Its population is possibly more than what it used to be about thirty years ago. It has started to damage buckwheat, wheat and maize crops in all over Pharak villages at night.

Its destruction of blue pine trees is very distinct, visible and considerable. It has peeled off hundreds of trees that the local communities have either planted or protected at Monzo, Banker, Rimijung, Chuserma and Nangbuk villages (Figure 7.2). It has mostly damaged the thinned and pruned blue pine trees in the Himalaya CFUG\textsuperscript{39}. The majority of forests in the Pharak region are of secondary growth and trees are young. Bear does not eat trees in dense bushes, preferring the thinned and pruned trees.
Himalaya CFUG has planted *Pinus patula* saplings that were generated from the Benkar nursery supported by Sagarmatha Community Agro-Forestry Project (SCAFP). Interestingly, bears prefer *Pinus patula* more than *Pinus wallichiana* for licking sweet resin. For bears, the bark of *Pinus patula* is easier to peel and perhaps because it has more resin as well. Bear has damaged lots of *Pinus patula* trees throughout the Pharak region over the last few years.

**Figure 8.3 Pinus patula (Mexican weeping pine) left, private plantation at Bosom and Dungde (right)**

8.3.5 Red panda

Red panda (*Ailurus fulgen*) is found in the river bank of Rangdok-khola, Ngambukhola, Kusum-khola and Shyamkaacha-khola areas in the Himalaya, Kongde, Dudhkunda, Red Panda and Pemacholing CFUGs respectively. There may be several other areas where red pandas can be found, but no research has been done on this so far. Red pandas in the Himalaya CFUG have often been sighted at the Rangdok-khola bank, which drains from Thamserku, Khang Tega and Kusum Khang Karu peaks above Monzo village. This river gorge used to be rich in old-growth silver fir, hemlock, blue pine, rhododendron and juniper forests before the 1970s. The valley had an abundance of bamboo forest as well. Red panda was a native wildlife in the Rangdok-khola basin even
before the 1950s. Historically, in the 1950s and the 1960s, Pharak Sherpas, including Monzo Sherpas, traded live red panda to India to keep in zoos (Sherpa, 2000). The red pandas in the Himalaya CFUG area disappeared during the DFO governance era as the ancient forests and its habitats were destroyed by loggers. Many of the wildlife including red panda were suspected to be killed when there was a big forest fire above Phakding in 1984 (Ledgard, 1996).

Bamboo is the staple and preferred diet of red pandas. However, one of the most available bamboo species died all over Pharak since 2007. A red panda was found dead in Rangdok area of Himalaya CFUG a few years back. Another two were found dead in Tolde and Somde red panda conservation area of Kongde CFUG in 2010. One of them looked like it was killed and the other one seemed like natural death. Whether they died because of food scarcity or any other reasons could not be identified. Some interviewees even suspect that they might be killed by non-local people without knowing the value of the animal. Kongde CFUG member Gyalzen Nuru Sherpa claims that he had seen a red panda eating Sorbus (Sorbus microphylla) and white beam fruits in Ngambu-khola valley. Red panda might have started to eat alternative food after one of the major bamboo species died in 2008. Two red pandas were reported to be seen near Ang Dorjee’s field at Rimijung in 2009.
8.3.6 Red panda Conservation Area

There are growing interests among the CFUGs for designating red panda conservation areas within community forests. The Himalaya CFUG declared Rangdok areas along the Monzo-khola valley as a red panda conservation area in 2004. This river basin used to have an intact habitat for red panda, black bear and much other wildlife before the 1970s, but the natural and ancient forest was cleared during the SNP infrastructure construction period in the late 1970s and the 1980s. The Himalaya CFUG area being at the closest proximity from Khumbu resulted into the gradual loss of the accessible Pharak forest resources beginning from Monzo area.

Red panda has been sighted by local people at different time intervals after 2000 A.D. More were sighted between the Monzo water mill and the micro-hydro power intake area at Rangdok. On the request of the Himalaya CFUG, buffer zone management program provided one time grant of Rs. 25,000 (US $ 313) for red panda conservation. However, the money was too little to undertake any activities related to red panda conservation. The CFUG also demanded the SNPBZ for a signboard of red panda conservation area like the one they had provided to the Red panda CFUG at Thadokosi,
but did not get one. The younger generation of the Himalayas CFUG does not know the
direct benefit of conserving red panda, but believes that it can attract more tourists to the
area and benefit economically from tourism. At Tolde and Somde in Kongde CFUG, an
area of 89.6 hectare of forest was protected as a red panda conservation area in the
previous constitution of Kongde CFUG 2004 (Kongde CFUG Operational Plan, 2004).

Dudhkunda CFUG designated an area of 1004 hectares in the forest at Kusum-
khol river basin as a red panda conservation area in 200440. No one can collect bamboo
and fell trees in the red panda conservation. A signboard indicating red panda
conservation area has been placed on the main trekking trail at Thadokosi to inform and
attract visitors.

8.3.7 Himalayan tahr

The Himalayan tahr (Hemitragus jemlahicus) of Sagarmatha National Park come
down as far as Benkar in the Himalaya CFUG area over the winter. They can be easily
counted at Benkar and Geringma areas. According to the Banker locals, their population
seems to have been pretty much constant between 50 and 60 for almost a decade. Since
common leopard has not been seen in the area for at least one year, tahr population is on
the rising trend. They graze on the hills above Banker and come down to the Dudh-koshi
River for drinking water. Thumbuk locals also report that the tahr population has
remained pretty much stable. Tahrs come into Monzo village from two valleys, one from
Khumbu (SNP) and other from Kusum Khang Khare valleys. The herd, which comes from
the SNP, eats crops like potato and vegetable, but the one which comes from the Kusum
Khang Khare valley does not damage crops. Monzo people can easily distinguish tahrs of
the two valleys from their food habits. Tahr’s of SNP eat crops in the Khumbu villages, but ones that come from Kusum Khang Karu valley have no opportunity to eat crops in their habitats. Tong CFUG in Tate area has also reported the roaming of more than 50 tahr’s. Tahr population at around Lomzo on the other hand, has decreased over the last decade. They are possibly preyed on by common leopard in Lomzo. Local people have seen tahr bones in Lomzo forest. Apart from tahr, barking deer (Montaicus munijak) and ghoral (Naemorhedus goral) are also found throughout the Pharak region and they also damage barley and vegetable crops.

8.3.8 Musk deer

Musk deer is an endangered and belong under CITES\textsuperscript{41} category I, that means specie threatened with extinction. It also belongs to protected fauna category under DNPWC Act of 1973, Nepal. Since the Himalaya CFUG is adjacent to SNP, many of the wildlife share food and habitats of both sides. Wildlife like musk deer (Moschus crysogaster), tahr, snow leopard, common leopard and many others wildlife roam in the park and Himalaya CFUG areas. Musk deer are commonly found at an altitude of 3,000 meter to 4,000 meters’ range of Himalaya and Kongde CFUGs. A musk deer couple used to graze at around the Monzo School until a few years back. They are no longer seen these days. Musk deer is a solitary animal and the male and female often walk together, but this is not always the case. Since Thamserku Trekking Company built the Kongde resort and constructed a trekking trail from Thame to Kongde, the trail has been serving as an easy access passage to wildlife like tahr and musk deer, which were barred by the steep cliff, stream in monsoon and ice in winter. As a result, more tahr and musk deer are

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commonly visible at Kongde area after the trail was built in 2008. This indicates that the
park’s wildlife once concentrated between the Kongde and Thame valley isolated by the
natural barrier can now move down to Pharak in winter and up to Khumbu in summer
easily.

The male musk deer has two tusks facing downward and carries precious musk
gland in its abdomen. Poachers attempt to kill males, but both male and female get into
traps and females become victims as well. The musk gland can be harvested without
killing the animal, but poachers in Nepal do not practice that. There are possible risks
related to the poaching of these musk deer in the Himalaya and Kongde CFUG areas by
outside poachers. Several incidents suggest that musk deer poachers are active in the
Pharak area. Kongde CFUG dismantled more than a hundred traps targeted for musk deer
and found a musk deer being trapped and killed by poachers in 2010. The traps and hide
of the musk deer is being displayed in the Kongde CFUG office. Several more traps were
also caught a few years ago in the forest above Toktok.

Local people in the Kongde CFUG also encountered musk deer poachers in the
forest. They placed traps for musk deer and danphe at Pangjung area. One of the
interviewees of Rimijung encountered one poacher while going to collect incense at
Pangjung, and he scared him off. Poachers usually come in during the winter when the
animals come down to warmer places to escape the cold and snow. According to the local
interviewees, poachers rarely come in monsoon as there will be more presence of cattle
herders and forest product collectors in monsoon. However, the case may be different in
SNP, as previous poaching incidents there mostly took place in the monsoon season. For
poachers, monsoon is a favorable season as they cannot be easily seen by people and
security personnel due to thick monsoon cloud. Herders have moved higher up and no
firewood collection takes place in monsoon. There will be no one in the Khumbu forest
during monsoon. The Pharak youths who lead trekking in the Khumbu valley reports that
musk deer population in the park has dropped down dramatically. The Khumbu
interviewees also say this. Previously, musk deer could be easily sighted at Kyangjuma,
Shanasa, Phunki Thanga, Tengboche, Deboche, Dole and Phortse areas. Now, only few
musk deer can be seen at Phortse forest only.

8.3.9 Himalayan langur and rhesus monkeys

Historically, there were many Himalayan langurs (*Presbytis entellus*) before the
DFO governance in the Pharak region. This specie declined after felling of the Pharak
forest in the 1970s. A couple langurs visit as far north as Monzo area once a year. They
do not stay long in the area though. There are also about 20-30 Himalayan langur in the
forest below Lhowa. Local people believe that until a few years back a monkey couple
used to visit Gokyo lake from Halesi Mahadevthian in southern Dudhkoshi valley, which
is more than three days walking distance from Pharak every year. On its way to Gokyo,
they used to spend at least one month in the Himalaya CFUG area (Sherpa, 2000). They
have not been seen during the last two years. A big herd of rhesus monkey (*Macaca
mulatta*) comes as far as Lhowa in the north. The herd has about a hundred monkeys and
the damage they cause to corn, potato, apple and selective vegetable crops are significant
at Lomzo, Bosom, Dungde, Nangbuk, Tate and Buwa villages. They did not come into
the fields until a few years back, but since their population has increased, their damages
to crops are increasing.
8.3.10 Danphe

SNP and Pharak buffer zone had Danphe (*Lophophorus impejanus*) until the last decade abundantly. It used to dig potato field while looking for insects. There were plenty of danphes at Kyangjuma, Lawishasa, Tashinga, Phortse, Phurte, Thamo, Pangboche villages in the park and Monzo and Gomlha areas in the Pharak buffer zone. But now only few can be sighted occasionally. Local people often found traps at Lawishasa and Tashinga and other areas targeted for danphe. This bird is suspected to be poached for meat by the non-local people at Lawishasa who stay in rented houses and serve as laborers or porters. The local people suspect them as danphe poachers, but no evidence has been found to prosecute them.

Although there is no evidence on whether snow leopard and common leopard hunt danphe or not, this may also be one of the causes for its population decline. Since the loss of danphe, tahr and musk deer population coincides with the increase of snow leopard and common leopard population in the park and Pharak buffer zone, it seems likely that there may be a connection. Wildlife biologist Sandro Lovari (2009) says that snow leopard hunts birds as the fourth choice after tahr, musk deer and livestock. Local interviewees, however, do not report that danphe is preyed by leopards. Danphe is usually found above 3,500 meters in the Pharak region and widely in the park below 4,000 meters. Despite the increase of forest habitats, bird species like kalize pheasant (*Lophura leucomelani*) also have decreased even in Lomzo, Lukla and Dungde areas. The local people suspect that porters and outsiders might have poached them for meat.
8.4 Wildlife Depredation and Compensation Scheme

The increase in the number of prey species like snow leopard and common leopard have damaged livestock of Pharak and Khumbu people considerably over the last ten years. SNPBZ has accumulated a fund for compensation, but has not been able to formulate a compensation scheme yet. Nevertheless, SNPBZ has allocated a reserved fund of Rs. 1.8 million (US $ 22,500) to address this issue. Wildlife depredation insurance scheme was discussed in 2007 and 2008. WWF had a meeting in Khumbu to discuss this, but the SNP draft could not be implemented. The Pharak and Khumbu agropastoralists received assurance from the SNPBZ in 2007-8 that they would get compensation if their livestock were preyed by wildlife. But in practice, that assurance did not materialize. Loss of domestic animals like cows, horses, zopkyoks, yaks, naks and calves have become common in the Khumbu and the Pharak regions. As the costs of these livestock are high, the loss of one cattle per year per family is a big loss to a village farmer’s economy.

Although, Sherpas are disappointed by wildlife depredation on crops and livestock, they never retaliate for the damage they have caused. They rather regard wildlife as spirits of the wild and leave them in nature undisturbed (Ale et al. 2007). The end result is that the local people may gradually give up the agropastoralism practice, but that stage is yet to be reached. The annual general meeting of the Chaurikharka buffer zone user committee held on July 5, 2011 at Yulngying village decided to implement livestock insurance and relief fund program to compensate wildlife depredation to local people’s livestock and crops. The decision had to be taken as the number of wildlife has increased and damage to local people’s livestock has escalated since community forest
user group system was launched. Yak/nak farmers or agropastoralists are now considered backward people due to lack of education and by the nature of their profession. Agropastoralists members rarely get invitation to buffer zone meetings in Pharak and Khumbu. So they cannot get a chance to voice their demand in the BZ meetings.

8.5 Possible Reasons for Increase of Wildlife Species in the Pharak Buffer Zone

Since the local community has taken the conservation, management and governance responsibilities of the Pharak forests, its impact is seen on the ecology of wildlife biodiversity over the recent years. The Pharak locals conclude that the increase of wildlife population in the Pharak region could be due to the following reasons: first, improvement in habitats after community forestry system was initiated. Second, traditionally, Rai and Magar peoples used to poach bear in the neighboring Juving and Taksindu VDCs for meat and gull, but since Maoist rebels took most of their guns during the insurgency, poaching by use of guns has decreased considerably. Third, agropastoralists of neighboring Taksindo, Jbing and Bung VDCs burn forest in spring and winter to grow better forage. Because of the forest fire in the down valley, wildlife including bear, common leopard and other mammals might have migrated to Pharak area for refuge. Fourth, people are more aware about conservation, therefore less poaching might have taken place in the neighboring Juving and Taksindo Village Development Committees.
PART II

SAGARMATHA NATIONAL PARK AND BUFFER ZONE ISSUES
CHAPTER 9

THE BUFFER ZONE CONCEPT AND SNPBZ

This chapter introduces the concept of buffer zone, its international origins and its value. More specifically, it reviews the concept of buffer zone in the protected area management and governance system of Nepal, and Sagarmatha National Park Buffer Zone (SNPBZ) in particular. It analyzes the history, local conservation politics and contestation surrounding the forms of protected area management and governance development in the SNPBZ. Finally, it discusses about the features of buffer zone management plans 2004 and 2007.

9.1 Background Concept of Buffer Zone

The concept of buffer zone evolved from UNESCO’s Man and the Biosphere Program (MAB) biosphere reserve model first proposed in 1968 (Neumann, 2002). MAB Program intended to conserve the genetic materials that natural areas contained. In 1974, MAB developed conservation models that distinguish three separate layers, the “core zone,” the “buffer zone” and the “transitional zone,” on the basis of available bio-cultural diversity in different ecological regions. Generally buffer zones are lands adjacent to parks and reserves where human activities are restricted to those which will maintain the ecological security of the protected areas while providing benefits to local communities (Neumann, 2002). Nepal has not created biosphere reserves but instead created buffer zones.
Nepal’s 1973 National Parks and Wildlife Conservation act (NPWC) defines buffer zone as the area set aside to provide regular use facility of forest products to local people residing adjacent to national parks and reserves. This definition indicates that buffer zones in Nepal’s protected areas are designated to reduce local people’s pressure on the natural resources of protected areas, so that biodiversity of core areas can be protected with lesser disturbances. Moreover, this definition also emphasizes that human dimensions are important if biodiversity conservation is to succeed.

As the continuous deterioration of global environment quality threatened the survival of the earth and its system in the 21st century, the United Nations World Commission on Environment Development (UN-WCED) chaired by Gro Harlem Brundtland in 1992 adopted the concept of sustainable development, which declared Agenda 21, the action plan of the Rio Earth Summit of 1992. Agenda 21 gave high priority for establishment of protected areas as means to address the rapidly deteriorating global biological diversity and environmental health. As a historic outcome of the summit, Agenda 21 endorsed the United Nations Convention on Biological Diversity (UN-CBD). The number of protected areas worldwide multiplied unprecedentedly from 1970 to present. Unfortunately, the majority of protected areas established worldwide followed the Yellowstone model of exclusionary approach not a sustainable development one (Stevens, 1997). As a result, the most protected area management systems worldwide evicted thousands of indigenous peoples and local communities from their ancestral land and affected many more millions’ livelihoods. Mark Dowie (2009) estimates more than ten million people have become conservation refugees worldwide. Secondly, the old paradigm conservation created prolonged conflict between park and
people due to its restrictive policy on resource use, management and governance. Thirdly, protected area management authority in the name of conservation made local communities and indigenous peoples enemy of conservation, without acknowledging their culturally, religiously and socio-economically imbued attributes and contribution (Dowie, 2009). Fourth, the livestock and crop depredation by wildlife of protected areas have aggravated the relationship between park and people. The list goes on and on, but one of the bigger pictures is that most protected areas worldwide are homelands, territories and repository of natural resources belonging to indigenous peoples and local communities, on which their lives and livelihoods have depended upon for millennia (Stevens, 1997, forthcoming; Martin, 2008). The situation of parks and people conflicts is more severe in the third world countries of Africa, Asia and South America where the majority of people live under the poverty line (Neumann, 2002). Those areas however are rich in biodiversity and cultural diversity and are homelands and territories of indigenous peoples who are often marginalized through colonization, discrimination and exclusion from development mainstream and resource governance (Stevens, 1997 and forthcoming; Maffi, 2008).

Old paradigm protected areas are usually managed and governed by the central government or state agencies and sometimes by quasi-NGO, which centralizes power of decision-making and dispossess management and governance rights of indigenous peoples and local communities (Stevens, 2010b). The majority of IUCN protected area management categories, particularly category I-IV, developed conflict between protected area authorities and local people. Categories V and VI are more oriented towards the people, culture and livelihood and often face less conflict. Category V protected
landscape usually have human settlements where sustainable use, consumption and management of natural resources are permitted. Category VI protected areas with sustainable use of natural resources integrate natural and cultural landscapes. The first four types of protected areas management categories are usually without permanent human settlement. The management goal of this category is to conserve biological diversity where human interference and interaction create problems. Because of these different management goals, category I-IV protected areas often develop conflict between protected area authorities and indigenous peoples and local communities. As a result, the ever growing conflict challenged the overall effectiveness of biodiversity conservation through protected area management and governance system worldwide over the last century. At the same time, local custodians and resource dependent communities in and around protected areas have resisted with protected area authorities through various tactics such as non-cooperation, resource destruction, and sometimes with organized movements and demonstrations (Jana, 2007, 2009).

Over the course of protected area development, various research and project implementation experiences proved that conservation goals can be best achieved only through community participation, social inclusion and their engagement in decision-making processes (Brandon and Wells, 1992; Jana, et al. 2010). Important lessons were learnt from integrated conservation and development projects (ICDPs); though the program failed at some parts of the world, some proved to be successful (Brandon and Wells, 1992; Kremen et al. 1994). Proponents argue that ICDPs can be linked with cultural survival efforts and thus seek to incorporate indigenous knowledge and practices in conservation management, although this is often not the case. The main features of
ICDPs are embodied in protected area buffer zone, where local communities and indigenous peoples desperately need development assistance (Jana, 2009). And in return they permit, even implement western idea based conservation models.

Buffer zone management programs in the African countries of Madagascar, Uganda and Cameroon have been established along with old paradigm protected areas, where the land and natural resources collectively and individually owned by indigenous peoples have been annexed and the peoples have been displaced (Neumann, 2002). Here it is typical for uninhabited old paradigm protected areas to be the core areas with adjacent buffer zones.

9.2 Development of Buffer Zone Concept in Nepal

The government of Nepal in financial and technical assistance of UNDP Nepal implemented the Park and People Program (PPP) in seven protected areas from 1995-2001. The PPP was piloted in seven national parks and wildlife reserves to develop the buffer zone management program (UNDP, 2012). The concept of buffer zone management program in Nepal was introduced in 1994 (DNPWC, web page 2012) and is based on the recommendation of PhD research dissertation of Dr. Uday Raj Sharma conducted in Chitwan National Park from the University of Arizona in 1991. Dr. Sharma recommends implementation of intensive conservation and development programs in the “impact zone” of national park to minimize park and people conflict and address social and economic needs of the indigenous peoples and local communities depending on park resources. As an outcome of the Park and People Program, Nepal government promulgated the Buffer Zone Regulations of 1996 by amending its 1973 NPWC Act for
the fourth time, and declared Chitwan National Park’s Buffer Zone in the same year (KMTNC, 1998; Jana, 2007, 2009).

The new buffer zone regulation provisioned that the village enclaves in and around protected areas of Nepal can be designated as buffer zones. The buffer zone management program (BZMP) of Nepal is the outcome of old paradigm conservation, initiated to address the conflict between government managed protected areas and local communities. Designation of buffer zone program opened up an avenue to plow back 30 – 50 percent of protected area revenues for ICDPs through community based institutions (KMTNC, 1998). Although the program is portrayed as decentralized governance program (Paudel et al. 2011), the realities in its institutional arrangement for decision-making represents a weak form of co-managed (shared) governance structure (Jana, 2007). Buffer zones are usually declared by government, government approval is required for the group’s legitimacy and management plans, and groups can enjoy only certain legally transferred privileges (Jana et al. 2010). Regardless of geographical, political and socio-economic variances, Nepal government enforced the Buffer Zone Management Regulation of 1996 in association with Nepal’s national parks and wildlife reserves to mitigate park and people conflicts. Chitwan National Park declared the first buffer zone in Nepal in 1996. Out of the 14 national parks and wildlife reserves of Nepal, 11 of them now have declared buffer zones (DNPWC, 2012 web page). Nepal government considers buffer zone as official protected areas.
9.3 Tourism and Funding Buffer Zone Operations

The effectiveness of buffer zone management program is however uncertain in absence of tourism revenue. The majority of buffer zone fund in Nepal is generated from tourists’ entrance fees. Other primary income source of buffer zone, first envisioned to be self-sustaining, is the revenue generated out of resource use fees, such as forest felling. This revenue however is not substantial to fund buffer zone program activities. Nepal government does not provide additional fund to buffer zones in absence of adequate budget. Tourist numbers in eight out of fourteen national parks and wildlife reserves of Nepal however are below 500 per year (Figure 8.1). Mountain national parks have been charging Rs. 1,000 (US $12) per tourist as an entry fee as of June 2012\textsuperscript{44}. Nepal’s several protected areas such as Rara, Shey Phoksundo, Suklaphanta, Khaptad, Koshi Tappu, Parsa and Dorpatan do not have enough tourists to generate the buffer zone budget (MOCTCA, 2010). The total revenue of one protected area, which receives 500 tourists per year, is Rs 500,000 (US $6,250). Fifty percent of Rs. 500,000 is hardly enough to accomplish one activity. In such a case the buffer zone management program is merely a “paper-zone” in several protected areas. Dorpatan, Khaptad, Koshi Tappu, Parsa, Rara, Shey Phoksundo and Shukla Phanta national parks and wildlife reserves have less than 500 visitors per year. The small numbers of visitors to many of these protected areas are associated with remoteness, lack of facilities, political instability and inadequate promotion among others. Buffer zone management programs in these protected areas need to generate fund from other sources or somehow attract more tourists for revenue generation\textsuperscript{45}. 

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Table 9.1: Protected areas with annual foreign tourist arrivals\(^{46}\)

<table>
<thead>
<tr>
<th>Protected Areas</th>
<th>BZ Declared</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
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<tr>
<td>Annapurna Conservation Area(^{47})</td>
<td>No provision</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>85,314</td>
</tr>
<tr>
<td>Bardiya National Park</td>
<td>Yes</td>
<td>2,790</td>
<td>3,087</td>
<td>3,727</td>
<td>4,765</td>
</tr>
<tr>
<td>Chitwan National Park</td>
<td>Yes</td>
<td>82,723</td>
<td>78,682</td>
<td>84,518</td>
<td>122,332</td>
</tr>
<tr>
<td>Dorpatan Hunting Reserve</td>
<td>No</td>
<td>55</td>
<td>21</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td>Gaurishankar Conservation Area</td>
<td>No provision</td>
<td>Not declared</td>
<td>Not declared</td>
<td>Declared</td>
<td>318</td>
</tr>
<tr>
<td>Kanchanjunga Conservation Area</td>
<td>No</td>
<td>546</td>
<td>449</td>
<td>401</td>
<td>591</td>
</tr>
<tr>
<td>Khaptad National Park</td>
<td>Yes</td>
<td>29</td>
<td>2</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>Koshi Tappu Wildlife Reserve</td>
<td>Yes</td>
<td>238</td>
<td>231</td>
<td>456</td>
<td>181</td>
</tr>
<tr>
<td>Langtang National Park</td>
<td>Yes</td>
<td>9,533</td>
<td>10,535</td>
<td>10,315</td>
<td>13,838</td>
</tr>
<tr>
<td>Makalu Barun National Park</td>
<td>Yes</td>
<td>1,371</td>
<td>1,828</td>
<td>1,323</td>
<td>1,501</td>
</tr>
<tr>
<td>Manaslu Conservation Area</td>
<td>No provision</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>2,629</td>
</tr>
<tr>
<td>Parsa Wildlife Reserve</td>
<td>Yes</td>
<td>-</td>
<td>49</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td>Rara National Park</td>
<td>Yes</td>
<td>104</td>
<td>146</td>
<td>135</td>
<td>174</td>
</tr>
<tr>
<td>Sagarmatha National Park</td>
<td>Yes</td>
<td>31,201</td>
<td>29,036</td>
<td>32,084</td>
<td>34,645</td>
</tr>
<tr>
<td>Shey Phoksundo National Park</td>
<td>Yes</td>
<td>678</td>
<td>325</td>
<td>558</td>
<td>512</td>
</tr>
<tr>
<td>Shivapuri National Park</td>
<td>No</td>
<td>8,344</td>
<td>11,178</td>
<td>11,798</td>
<td>15,921</td>
</tr>
<tr>
<td>Shukla Phanta Wildlife Reserve</td>
<td>Yes</td>
<td>59</td>
<td>161</td>
<td>115</td>
<td>190</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>137,671</td>
<td>135,730</td>
<td>145,568</td>
<td>282,975</td>
</tr>
</tbody>
</table>

(Source: MOCTCA & DNPWC, 2011)

Protected areas without sufficient budget for buffer zone management programs are problematic. One of the key objectives of buffer zone management program is to improve the livelihoods of protected area resource dependent communities. However, protected areas of Nepal do not have separate budget programs to address the livelihood
issues. Enforcement of protected area governance without sufficient buffer zone
management budget is a continuous violation of human rights and indigenous peoples’
rights. At the same time local communities are discontent with the protected area
management authority and as a ramification, degradation of biodiversity and conflict are
apparent. Buffer zone fund generated from tourism fees and resource use by the local
communities and from other sources are insignificant to address communities’ needs and
reduce park people conflicts.

Sagarmatha National Park receives more than 33,000 tourists annually. This
figure is the second highest after Annapurna Conservation Area. The buffer zone fund
generated from the park entrance fee alone stands more than thirty million Rupees (US
$375,000) per annum. SNPBZ’s geographical coverage, moreover, is relatively small and
has a smaller population compared to many other protected areas, since it includes only
three VDCs with total beneficiaries of 5,869 people (MFSC/DNPWC, 2003, 2007). Since
the buffer zone management program was launched in 2002, 50 percent of the park
revenue (with exception of two years’ budget reduction by fifty percent and one year’s
budget diversion), has been plowed back to the Khumbu and Pharak regions.
Additionally, the government of Nepal has diverted the entire buffer zone budget
including SNPBZ’s budget of the fiscal year 2011/12 to pay-off the allowances of Maoist
combatants discharge (Sherpaworld.com).
9.4 Development of Buffer Zone Concept in the Pharak Region

As Nepal exhibited a degree of democracy in 1990 (retaining a King), the promulgation of a new democratic constitution liberalized conservation policies, and helped lead to a fourth amendment to its 1973 National Parks and Wildlife Conservation (NPWC) Act to include the provision of the buffer zone management program (MFSC/DNPWC/2003; Paudel, et al. 2011). The concept of a buffer zone emerged at the
time when the effectiveness of conservation governance of SNP (the UNESCO World Heritage Site) was interrogated by local, national and international actors in the late 1990s. After three decades of SNP establishment, the adjacent Pharak region had emerged as the “impact zone” of SNP as it lost its ancient forests, habitats, connectivity ecosystem, wildlife and the governance authority, affecting the majority of local population’s livelihood. Although, buffer zone policy and regulations stipulate that the area affected by the establishment of the park shall be designated as a buffer zone, local politics and lack of knowledge about the buffer zone management program delayed the designation process of SNPBZ in the late 1990s.

9.5 SPCC, WWF and Buffer Zone

Since the establishment of the Sagarmatha National Park in 1976, the demand for forest resource of the park (the Khumbu region) shifted down to the Pharak region (Stevens, 1993). The forest logging that began from the park border of Monzo in the early 1970s gradually moved down to Rimijung, Phakding, Ghyuphete and Lhowa (Rogers, 1997; Sherpa, 2000). Timber, firewood, charcoal use in the park and forest fires was the major reasons for the Pharak forest degradation over the decades from the 1970s to 2000. The Pharak people would view conservation activities such as plantation and forest protection as the national park’s extension program in the 1990s.

As the Pharak region had lost its forest resources because of SNP’s Khumbu villages’ demand, WWF Nepal in partnership with the Sagarmatha Pollution Control Committee formulated the Sagarmatha Community Agro-Forestry Project (SCAFP) in 1995 (WWF, 1995). The agroforestry project has been successful in raising conservation awareness among the Pharak locals, which ultimately led to a demand for buffer zone
management program in 2002. Sagarmatha Pollution Control Committee (SPCC),
established by the local communities of Khumbu and Pharak in 1991, initiated school and
community plantation programs in the Pharak region in 1994. When more than a
thousand blue pine and silver fir saplings were transported to Monju, Rimijung, Ghyuphete, and Kyongma from the Phurte nursery, the local elites in Chaurikharka tried
to politicize the plantation campaign. They threatened SPCC project officer for taking the
initiative to plant trees and spread the rumor among the local communities that the
plantation campaign was a part of SNP boundary extension in the Pharak region. As the
degradation of Pharak’s ancient old-growth forests was continuing, SPCC along with
WWF Nepal commissioned a three member planning team to consult the local
communities to see if a strategic plantation program was required to address the ongoing
problem. The team drafted a five-year Pharak SCAFP in 1995 with a concerted effort of
rapport building, communication, coordination and clarification of the local forest
degradation situation, future implication and local people’s interest. The team,
coordinated by myself as the then SPCC Program Officer, spent six weeks in the Pharak
region in the consultation and planning process. I communicated with the local residents
in Sherpa language, justified why a forestry project was the need of the time, and
promised that the plantation program would not extend the park boundary in the Pharak
region. The Pharak communities were very skeptical of the park concept as it restricts
the forest access rights of the local people. This was clearly witnessed in the neighboring
Khumbu region for more than twenty years.

SPCC implemented the SCAFP project in the Pharak region in 1996 with the
financial assistance of WWF UK and in coordination with WWF Nepal Program. Some
local politicians, elites and timber loggers tried to politicize the project and prove that it was a failed program. The contestation between local Sherpa conservationists and these people who supported illegal logging under CFUG regulations continued for many years. After the pro-logging leaders lost the local level election in 1997, the new leadership in the VDC supported the conservation program without any biases. The suspicion and accusation about the SCAFP was much discussed in the Chaurikharka VDC Council meeting held at Nachipang in 1998, which unanimously endorsed the project, legitimized it to continue, and clarified that the project is not part of the park extension program. With this historic political decision, the SCAFP continued its implementation and made a great contribution in increasing conservation awareness at the grassroots level. The project implemented with the approach of integrated conservation and development (ICDP) raised awareness among the Pharak locals and finally they reached to a stage where some Pharak people organized themselves and demanded in 2001 that the Nepal government declare the Pharak region as the buffer zone of the Sagarmatha National Park. This materialized a year later.

9.6 The Designation Process of SNP’s Buffer Zone

The Pharak residents represented by various community organizations, such as Chaurikharka village development committee, community forest user groups, Chaurikharka Women’s Groups, Lukla Himalaya Club along with Khumbu Sherpa communities, made a special request to the government of Nepal to declare Pharak as the buffer zone of the Sagarmatha National Park. The request was made to the then Minister of Forests and Soil Conservation, Mr. Gopal Man Shrestha during his field observation visit to the Pharak and Khumbu region in 2001. Written applications and verbal requests
were made to the minister during his Pharak and Khumbu field visit. The WWF/SCAFP made his field visit possible. The minister interacted with the local communities at Lukla, Lhowa, Phakding and Monzo villages in the Pharak region and Nauje in Khumbu. The Forest Minister upon returning to the Capital shared the proposal with the Member of Parliament (MP) of Solukhumbu Mr. Bal Bahadur KC, who also belonged to the Nepali Congress party. MP Mr. KC enquired with the Chaurikharka VDC Chairperson Mr. Penoorie Sherpa if the proposal of declaring Chaurikharka as the buffer zone of SNP is a genuine demand of the local communities. Mr. Penoorie clarified that the proposal is the true demand of local communities. Two months after the minister’s field visit, the then Government of Nepal declared the 275 square kilometer area of the Pharak and over a hundred settlements of the Sagarmatha National Park (SNP), excluding their forests and grazing lands the buffer zone of SNP on January 1, 2002. The SNPBZ included political administrative boundary and area of Chaurikharka, Nauje and Khumjung Village Development Committees (VDCs), to be managed and governed under the Buffer Zone Management Regulations of 1996 and Guidelines of 1999. The buffer zone in the SNP was conceived as a way to increase the effectiveness of biodiversity conservation, reverse the trend of forest resource degradation in the Pharak region and address the livelihood issues of the local communities through buffer zone budget programs.

Though the buffer zone management program of SNP was declared in 2002, there was no budget to implement the program until 2004. Fortunately, the implementation period of TRPAP coincided with this period. Instead of creating other community based organizations to implement the program, TRPAP was implemented through the newly formed buffer zone institutions. TRPAP established its field office at the park
headquarters at Nauje and distributed budget to BZUCs and BZUGs, which played the
paramount role of institutionalizing the buffer zone concept at grassroots level in
Khumbu and Pharak (MFSC/DNPWC, 2007). SCAF added additional support on the
Pharak and Khumbu buffer zones until 2005. TRPAP supported the park, buffer zone and
the local communities in planning, implementing and monitoring of its program activities
through community based participatory planning process in addition to formulation of the
management plan (MFSC/DNPWC, 2007).

9.7 The Buffer Zone Management Plans and Their Goals

The first Buffer Zone Management Plan 2004-2008 was prepared by a team of
SNP staff and SCAF field staff in 2003. The team consulted the Khumbu and Pharak
right HOLDERS and stakeholders about their needs and interests using the Appreciative
Participatory Planning and Action (APPA) planning tool. The baseline information
gathered from the field was refined and reviewed in several workshops and meetings in
Kathmandu. The plan was structured in a logical framework format and included
tentative budget estimation. It was written in English. To what extent the BZUG and
BZUC members understood the English version of the management plan is yet to be
assessed, but was likely an issue.

Three paid staff, one each as an assistant for each of Chaurikharka, Namche and
Khumbila Buffer Zone User Committees, was hired to implement the buffer zone
management plan 2004. Their experiences were mixed. The Chaurikharka BZUC
assistant, who is a local Sherpa from Lhowa village resigned as the immediate Chief
Warden attempted to use him for his personal research data collection in addition to his
regular duty. Namche and Khumjung BZUCs had Tamang and Rai assistants respectively, who were non-locals. The UNDP/TRPAP also appointed one Social Mobilizer for each of the BZUC and a Village Tourism Advisor at the Buffer Zone Management Committee level to implement the tourism project and facilitate to prepare the five-year Sagarmatha National Park Management Plan in 2003.

The first SNPBZ management plan included a wide range of integrated conservation and development program activities to enhance the livelihoods of the local communities while seeking their active participation in natural resource management. The program activities are developed on five major sub-headings as prescribed by the Buffer Zone Management Guidelines of 1999 as shown in (Table 8.2).

<table>
<thead>
<tr>
<th>SN</th>
<th>Program Component</th>
<th>Total Five Year Budget (NRs)</th>
<th>Percentage of budget total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Natural resource conservation</td>
<td>50,912,000</td>
<td>35</td>
</tr>
<tr>
<td>2</td>
<td>Sustainable community development</td>
<td>67,768,000</td>
<td>46</td>
</tr>
<tr>
<td>3</td>
<td>Income generation and skill development</td>
<td>15,295,000</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Conservation education</td>
<td>5,590,000</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Administrative and management</td>
<td>7,998,000</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>147,563,000</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The management goal stipulated in the first SNPBZ management plan 2004 is:

"Biodiversity conservation and sustainable management of natural resources of Sagarmatha National Park Buffer Zone through local community participation".
The five-year term of the first buffer zone management plan was completed in 2008. All
the buffer zone programs, plans and activities were implemented as per the approved plan
over the first term of the buffer zone institutions. There were twenty-eight Buffer Zone
User Groups, three User Committees and one Management Committee in the SNPBZ
(MFSC/DNPWC, 2003).

The first SNPBZ management plan 2004 was succeeded by the Sagarmatha
National Park Management and Tourism Plan (SNMTP) 2007-2012, which both
replaced the SNP Management Plan of 1981 and continued a section on Pharak buffer
zone planning. The SNMTP 2007 was prepared in extensive community consultation
and stakeholder consultation in Kathmandu by a team of experts headed by Dr. Lhakpa
Norbu Sherpa, former Chief Warden of SNP. The team members included an
ecologist/biologist, a socio-economist and an international tourism expert. A total of 20
months were spent to complete the plan. The plan was prepared under the technical and
financial assistance of Tourism for Rural Poverty Alleviation Program (TRPAP) in 2004
and completed in 2006.

The buffer zone management mission as envisioned by the SNMTP 2007 is:

"to play a supportive role in conservation of the core areas through production of
resources for local needs, habitat linkages for flora and fauna and involvement of
the local people in protection of natural and cultural values while ensuring that
the communities continue to improve their quality of life through sustainable
development".
The management goals of the SNPBZ as envisioned by the SNPMTP - 2007 are more specific than the 2004 SNPBZ plan. It stipulates these as:

“To increase the local people’s support for conservation by ensuring sustained production and flow of buffer zone resources through improved management of buffer zone forests, wild lands, agricultural land and settlements in an environmentally sound and culturally acceptable ways; and by continuing equitable sharing of the park revenues for improving livelihoods”.

The management goals of both the buffer zone management plans of 2004 and 2007 prioritized biodiversity conservation and improvement of local people’s livelihood through community participation in natural resource management. The latter plan explicitly adds equitable sharing of park revenues for improving livelihoods of local communities. However, both the plans’ management goals failed to include empowerment of the local communities in resource governance and did not establish local people’s sovereignty over resource governance as necessary for the success of meaningful biodiversity conservation. Nevertheless, both the plans stated that local communities’ support is inevitably required for long-term conservation of biological diversity. Moreover, both plans indicate that the buffer zone governance is to be a co-management arrangement, where the local communities’ active participation in decision-making process is paramount.
CHAPTER 10

PHARAK PERSPECTIVE ON BUFFER ZONE IMPLEMENTATION AND SNP MANAGEMENT

This chapter discusses buffer zone governance and the planning and institutional framework of the Sagarmatha National Park (SNPBZ). It analyzes the governance of buffer zone of SNP from Pharak people’s perspective, and assesses its impacts. Secondly, it includes an overview of the Buffer Zone Management Plan 2004 and Sagarmatha National Park Management and Tourism Management Plan 2007. Thirdly, it discusses about energy demand, inter-village competition to secure budget for micro-hydro project development along with associated politics, conflicts and contestation over buffer zone budgets in the Pharak region. Finally, this chapter discusses the role of international NGOs in conservation and development of the SNPBZ in Khumbu and Pharak including CESVI’s Community-based Land and Forest Management Project.

10.1 Buffer Zone Governance

The buffer zone institution in Nepal is a form of shared governance model in conservation domain, as it is represented by locally elected community leaders, government appointed chief conservation officer and District Development Committee representative in Buffer Zone Management Committee (Jana, 2010; Jana & Paudel, 2011). Although Buffer Zone User Groups (BZUGs) and Buffer Zone User Committees (BZUCs) are solely represented by local indigenous peoples and communities, and have the freedom to prepare their budget program, the program are reviewed and refined by
the BZMC at the park headquarters. The locals’ representation at the BZMC is weak as they have no rights to sign financial accounts and approve income and expenditure documents (Sherpa, 2008; Paudel, et al. 2011). The chief conservation officer (Warden) as an ex-officio member secretary of the BZMC enjoys the major decision-making authority (Jana & Paudel, 2010). The chief conservation officer also acts as a facilitator between the local communities and central government, represented by the Department of National Parks and Wildlife Conservation (DNPWC) and the Ministry of Forests and Soil Conservation (MFSC). Experiences so far have shown that the extent of strong or weak collaboration between the park and buffer zone purely depends on the attitude of the chief warden, rather than standardized institutional model. In this regard, buffer zone management programs often claimed to be co-managed governance in practice are merely satellite programs of protected area authorities (Paudel, et al. 2011).

The majority of BZUG members in Pharak realize that the buffer zone institution is not an autonomous organization. Some interviewees believe that conservation cannot be effective if it is totally governed by the community or just by the government. In the case of community governance, if there is weak leadership and any problems arise; local community organizations can easily become inactive. As a result, constitutions and operational plans will also become ineffective. On the other side, governance by government can be exclusionary in decision-making process and become autocratic. The majority of buffer zone leaders view that they should have more authority and rights to make decisions in order to achieve a successful conservation model.
10.1.1 Inclusive Participation, Transparency and Accountability

In general, buffer zone management program in the Pharak region has played an important role to motivate the local community in conservation and development over the last decade. The majorities of the buffer zone executive members are youths of ages between 20 and 30 and include both male and female (Appendix 4). This program has engaged local right-holders, custodians and leaders in the business of conservation, socio-economic development, tourism promotion and environmental protection.

However, there are also certain levels of dissatisfaction towards the leaders for being biased. The Pharak community has experienced the tenure of two Buffer Zone User Committee (BZUC) chairpersons, and both are accused of being biased when distributing project activities. During the terms of each of the leaders, the major buffer zone project activities are said to be concentrated in their own hometowns. This seems to be a common possible problem among the BZUC leaders.

Some of the backward and poor areas did not get sufficient budget and program activities, whereas the rich areas got most budget and projects. More social empowerment in such communities, regular monitoring and evaluation of the buffer zone program, awareness raising and feedbacks to buffer zone leaders are necessary to change this situation. Secondly, users are discontent with the BZUG and BZUC leaders for holding meetings secretly and excluding users in the meetings. In many cases, BZUG meetings are held publicly, but the implementation is said to be kept secret and leaders themselves handled all the budgetary expenses. In several cases, there is lack of coordination and communication between users and executive members. More open dialog and communications are required to improve this situation.
Most commonly, BZUG meetings are held only two times in a year that is one during planning and another one while project is completed. All of this requires the endorsement of the user group. Some BZUGs report that not every household is invited to the annual planning meeting. Some of the BZUGs extend invitation to stakeholders of the BZUG as well. Since all the households of the BZUGs are user members and they have the right to participate in the planning and implementation meetings, each and every household should have been invited to meetings and provided the platform to express their concern. Although this may be a lengthy and time consuming process, there are gains in doing that and is something required under buffer zone rules and regulations. It will provide an opportunity to the users to understand about the program activities and get meaningful participation in conservation and development governance.

10.1.2 Buffer Zone Management – Project Choice and Funding

It is good to note that the majority of the Pharak buffer zone users are happy with the buffer zone management program in terms of projects and use of funds. Most of the Chaurikharka buffer zone budget so far has been invested for micro-hydro development projects. Though there are external supports from various organizations such as UNDP/REDP, Kadoorie/WWF and DDC Salleri, the most of the buffer zone budget in Pharak buffer zone has been allocated in micro-hydro energy sector. As the use of firewood and timber has been the major cause of forest degradation in the Pharak buffer zone, energy is the first priority project of the Pharak people. So investment in the energy sector is making a change in the Pharak buffer zone. However, only partial demand has been fulfilled over the last six years’ of BZUC’s funding cycle. The buffer zone budget
flow was disrupted for two fiscal-years in 2065/66 (2009) and 2066/67 (2010) because the government had misplaced all the financial reports and invoices in the MFSC. In addition, the government of Nepal used all the budget of the buffer zone management programs including SNPBJ of Nepal for discharging Maoist combatants from cantonments in 2012. The buffer zone budgets were used to pay allowances for combatants. The frequent interference of government to the buffer zone management program has been an impediment to the regular and robust development of buffer zone institution in the SNPBJ.

On the physical side of development, the majority of Pharak interviewees report that since buffer zone was launched, conditions of trails, drinking water and electric power supply have improved considerably. Some respondents report that there has been mani wall maintenance, bridge construction at Rimijung and Ngambuthanga, but does not know about the source of the program. People did not know where the budget came from and how much the allocation was. This informs that there needs to be more communication and coordination between buffer zone leaders and beneficiaries. The leaders should be transparent, good-hearted and participatory, no matter how big or small the projects are. Rimijung is an off-route village, where all inhabitants are subsistence level farmers.

In further south, buffer zone support to Nangbuk community has been very little. Since buffer zone program was introduced, Nangbuk community has received Rs. 200,000 (US $ 2,500) for drinking water project and Rs. 100,000 (US $ 1,250) for installation of improved water mill. In its comparison, the TRPAP and SCAFP project supports were at least five times bigger depending on the types of projects.
10.1.3 Buffer Zone Management Program and Park and People Conflicts

Tawak and Thumbuk villages of Chaurikharka VDC, in the northern part of the Pharak area of the buffer zone, lie within the boundary of the SNP. The Sherpa community there realizes that since buffer zone management program of the SNP has been implemented, the conflict between the park and local people have decreased considerably. Previously, the park used to organize a one day-long annual conference to interact with the local community and solicit the community complaints about the park. As the number of park people issues have decreased due to local communities’ participation in the buffer zone management program, the tradition of organizing a one day-long annual conference is no more in practice. Since then SNP’s operation is partially based on consultation with the local community. Local community issues and concerns can be openly expressed through buffer zone representatives and they do not necessarily have to go to the park office for complaints. Therefore, to some degree community voice is communicated to the park authority through the buffer zone management institution. This situation and case is similar to Khumbu buffer zone as the communities there feel that they have more opportunities to take part in conservation and development activities through buffer zone management program. In this area of Pharak, the community’s sense of control over natural resources such as forest, wildlife, grazing commons, water, mountains and territories are increasing even though their community land tenure and rights are not legally recognized.

However, the effect on community resource use due to park’s management and governance is different to the south of Khumbila BZUG, in ward number 1 of
Chaurikharka VDC. There have been one or two incidents in the neighboring Kongde and Pemacholing CFUGs between park staff and local community concerning forest and wildlife issues over the last five years. For example, park officials came to Pemacholing and Kongde CFUGs to lobby the CFUGs to allow timber transportation to Khumbu for business in 2009. For detailed description of this issue, please see the section of Himalaya and Kongde CFUGs in chapter 5. However, the issue was due to personal attitudes of the official rather than institutional policy of the park. Further south in the Pharak buffer zone, the influence and interaction of the park and buffer zone is less apparent and self-governance is stronger. In comparison to buffer zone management program, community forest policy and practice is more streamlined and grounded in local communities’ livelihoods.

10.1.4 Conflict between BZUG and BZCFUG

Although BZUGs and BZCFUGs are both operated under the Buffer Zone Management Regulations of 1996 by SNP’s Buffer Zone Management Committee (BZMC), there are a few conflicts between them. In some of the BZUGs, such as Gautam Buddha BZUG at ward number 5 and Hariyali BZUG at ward number 4, there are power conflicts between CFUGs and BZUGs. Since Buffer Zone Management Regulation of 1996 considers community forest, tourism management committees and other functional groups as sub-committees of BZUC (Article 11), they take that these groups are under their jurisdiction and management, whereas, the CFUG and other subcommittees consider themselves as independent autonomous institutions. In addition, buffer zone program has not allocated specific budgets for CFUGs to improve the forestry sector. Therefore, to
some extent these two institutions seem disconnected from institutional, technical and financial assistance and linkage perspectives. This issue needs to be resolved through more coordination, communication and mutual understanding to achieve conservation and development goals at the grassroots level. Although there has been occasional token financial support to CFUGs in some of the BZUGs, there are no institutionalized and consistent linkages established yet.

10.1.5 Institutional Framework of SNPBZ

This section describes the SNPBZ’s institutional framework and geographical representation of the Khumbu and Pharak people in buffer zone management and governance institution. Namche and Khumjung VDCs have one Buffer Zone User Committee (BZUC) and nine Buffer Zone User Groups (BZUGs) each, while Chaurikharka VDC has one BZUC and ten BZUGs. Ward number four of Chaurikharka BZUC has two BZUGs, one at Nangbuk (Mushey) and another one at Buwa (Surke) (Figure 3.3). Each of the BZUG is based at ward level as defined by Nepal government, not on the basis of villages or settlements. Wards often include several villages, and big villages are divided into several wards. BZUG is the smallest governing unit of buffer zone institution. Each household becomes user member and is led by a three members’ executive committee, which includes a chairperson, vice-chairperson and secretary.

Two executive members from each of the BZUG automatically becomes a member of the BZUC at the VDC level and these members select one chairperson, vice-chairperson, secretary, vice-secretary, treasurer and additional members. The total board
members of the BZUC are thirteen. A thirteen member committee is the practice in all three BZUCs of SNPBZ.

**Figure 10.1: Buffer zone institutional structure**

![](image)

The chairperson of the Chaurikharka, Nauje and Khumjung BZUCs, a representative of the Solukhumbu District Development Committee (DDC) and the Chief Warden of the SNP make up the Sagarmatha National Park Buffer Zone Management Committee (SNP/BZMC). According to the buffer zone management regulations, the chairperson of the committee will be one of the BZUC representatives, the chief warden of the park will be the ex-officio member secretary and the remaining three representatives will be the members of the executive board for a five years’ term. The chief warden bears the executive authority to implement the BZMC’s decisions, that is, to call meetings of the BZMC, implement the meeting outcomes, prepare and submit the five-year buffer zone management plans and annual work plans and report to the government of Nepal. In addition, he also has the monitoring and supervision role of all the buffer zone institutions. The institutional framework of the SNPBZ is illustrated in the following chart (Figure 9.2).
10.2 SNPBZ Planning and the SNPMTP 2007-2012

A five-year buffer zone management plan prepared under the Buffer Zone Management Guidelines of 1999 guides the entire program activities of the buffer zone. The first buffer zone management plan (2004-2008) was prepared with the assistance of Sagarmatha Community Agro-Forestry Program (SCAFP) in 2003. According to Nepal’s Environmental Protection Act of 1996 and Environmental Protection Regulation of 1997, management plan of park and buffer zone has to go through an initial environmental
examination (IEE) process and secure Ministry of Forests and Soil Conservation’s approval for implementation.

Secondly, the Tourism for Rural Poverty Alleviation Program (TRPAP), implemented by the Ministry of Culture, Tourism and Civil Aviation, provided the technical and financial assistance to prepare the second Sagarmatha National Park Management Plan in 2003 (MOCTCA/TRPAP, 2007). SNP’s first five-year management plan was prepared in 1981, and was not revised for almost three decades. Department of National Parks and Wildlife Conservation (DNPWC) reviewed the implementation status in 1993 and reported that the plan needs to be urgently revised to address emerging challenges (MFSC/DNPWC, 2007). DNPWC, in financial and technical assistance of TRPAP formulated the new plan in 2006. The overall revision, along with the Initial Environmental Examination (IEE) process, took three years to complete. Finally, the Sagarmatha National Park Management and Tourism Plan (SNPMTP) 2007-2012 were adopted. It replaced the old park management plan and also the buffer zone management plan of 2004.

The SNPMTP 2007 contained three major sections, that is, park management, buffer zone management and tourism management annexed by an IEE report. This is the first Nepalese national park management plan, which integrates tourism with park management in consultation with local right-holders and stakeholders (Stevens, 2007). TRPAP printed a hundred and fifty copies of the plan, which was written in English. One hundred copies were handed over to the DNPWC, and fifty copies were distributed to stakeholders in 2007, although the chairs of the three BZUC did not receive a copy until 2008. The plan was also translated into Nepali language by IUCN’s Hindu-Kush
Himalaya Karakoram Partnership Project (HKKH) at my initiative while I was its Program Officer in 2008. A hundred copies of the Nepali version were printed and handed over to the DNPWC, SNP and BZ institutions. IUCN/HKKH also organized two separate orientation trainings to the right-holders and stakeholders of the SNPBZ in 2007 and 2008 at Khumjung and Nauje respectively. The objectives of the training were to orient them to the contents of the park and buffer zone management plan. Moreover, the draft of SNP regulation 2065 (2008) prepared by DNPWC in financial and technical assistance of TRPAP and IUCN/HKKH was also presented for comments.

The SNPBZ is currently running on its fifth year of its second term (2008 to 2012). Over the process of my field research, I learned that while Nauje and Khumjung BZUCs are following the SNPMTP as a guiding document for planning annual budget activities, the Chaurikharka BZUC seemed less aware of the management plan. However, some of the BZUG members in Chaurikharka had referred to the Nepali version of the management plan while preparing their annual work plans. Since the management plan is a technical document, BZUGs might need more guidance to implement it. The chief conservation officer of the park and the buffer zone chairperson could have played a more active role in maintaining dialog and providing training to BZUC and BZUG about the management plan.

Although the BZUCs and BZUGs usually received a brief budget preparation guideline from the BZMC, the user group executives were not aware of its source and basis in the plan. The management plan 2007 did not merely sit in the park official’s drawer as other government documents often do, but to some extent it suffered from ineffective implementation. Its implementation seemed sporadic and uncoordinated.
Some of the key policy related activities highlighted in the plan were not followed through, such as the formation of Park Advisory Committee and formulation of the park management regulations. The park advisory committee as proposed in the draft park management regulation has not been formed because a regulation submitted to the government in 2008 has not been approved. The Sagarmatha Tourism Coordination Forum (STCF) meetings did not continue after the third meeting held in 2008. There was no monitoring and evaluation on it and its outcomes.

The management plan is due to be reviewed in 2012. There had been some discussions in the buffer zone management committee about its revision process and funding sources, but no decision has been made so far. Currently, CESVI is the major foreign aid project working in the SNPBZ, but it has its self-defined activities, and may not be able to fund the management plan review and revision process. The following section explains why the Pharak people are interested in buffer zone management program.

10.3 Alternative Energy: Micro-hydro Development and Politics

Apart from the above management and governance issues, the majority of buffer zone program activities in the Pharak region are concentrated on electricity projects, on which, politics and the future of Pharak people’s economy, environment, ecology and livelihoods depend.
10.3.1 Community Interest for Demanding Buffer Zone in Pharak

The Pharak people became interested in the buffer zone management program due to the provision that allowed 30-50 percent of the park revenue to be spent on conservation and development activities including electrification. The importance of the buffer zone program was felt due to the increasing depletion of forest resources in the Pharak region by the tourism industry (Sherpa, 2000). However, conservation of forest resources without providing an alternative to the local users would be opposed (Sharma, 1991). Through the SPCC and WWF/SCAFP’s joint initiative, the importance of forest and alternative energy was raised in the Pharak region over the decade between 1993 and 2002 (MFSC/DNPWC, 2004; Ledgard, 2008). The Pharak people realized that conservation and development for them could mean change of livelihood through electrification, income generation and forest conservation. Therefore, the development of micro-hydro power plant became the development priority of the Pharak people and they thought that that could be achieved through buffer zone management program (Sherpa, 2000).

The following two tables present the database of peltic sets (Table 9.1) and micro-hydro power production (Table 9.2) of the Pharak region particularly after the formation of community forest user groups in the late 1990s and buffer zone user groups in 2002 in the Pharak region.
Table 10.1: Pelvic sets (1-10 Kilowatt) in the Pharak region

<table>
<thead>
<tr>
<th>SN</th>
<th>Name of Owner</th>
<th>Village/ward</th>
<th>Estd. Date</th>
<th>Production In Kilowatt</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pemba Nuru Sherpa</td>
<td>Monzo - 1</td>
<td>2004</td>
<td>5</td>
<td>Private</td>
</tr>
<tr>
<td>2</td>
<td>Ngawang Lhakpa Sherpa</td>
<td>Lomzo -3</td>
<td>2007</td>
<td>2</td>
<td>Private</td>
</tr>
<tr>
<td>3</td>
<td>Buwa</td>
<td>Surke - 4</td>
<td>2009</td>
<td>5</td>
<td>Community</td>
</tr>
<tr>
<td>4</td>
<td>Dachiri and others</td>
<td>Nangbuk - 4</td>
<td>2005</td>
<td>5</td>
<td>Private</td>
</tr>
<tr>
<td>5</td>
<td>Dorjee Sherpa</td>
<td>Phakding - 5</td>
<td>1998</td>
<td>2</td>
<td>Private</td>
</tr>
<tr>
<td>6</td>
<td>Lhakpa Nuru Sherpa</td>
<td>Zomfute - 5</td>
<td>2002</td>
<td>2</td>
<td>Private</td>
</tr>
<tr>
<td>7</td>
<td>Dudhkunda CFUG</td>
<td>Yulning - 6</td>
<td>1999</td>
<td>5</td>
<td>SCAF support</td>
</tr>
<tr>
<td>8</td>
<td>Sewangma</td>
<td>Sewang - 7</td>
<td>2008</td>
<td>3</td>
<td>Community</td>
</tr>
<tr>
<td>9</td>
<td>Tate</td>
<td>Tate - 7</td>
<td>2006</td>
<td>2</td>
<td>Community</td>
</tr>
<tr>
<td>10</td>
<td>Khumbu Resort</td>
<td>Lukla - 8</td>
<td>2002</td>
<td>5</td>
<td>Private</td>
</tr>
<tr>
<td>11</td>
<td>Mera Lodge</td>
<td>Lukla - 8</td>
<td>2005</td>
<td>5</td>
<td>Private</td>
</tr>
<tr>
<td>12</td>
<td>North Face Resort</td>
<td>Lukla - 8</td>
<td>2002</td>
<td>3</td>
<td>Private</td>
</tr>
<tr>
<td>13</td>
<td>Karma Inn</td>
<td>Lukla - 8</td>
<td>2006</td>
<td>3</td>
<td>Private</td>
</tr>
<tr>
<td>14</td>
<td>Sherpa Guest House</td>
<td>Lukla - 8</td>
<td>2006</td>
<td>3</td>
<td>Private</td>
</tr>
<tr>
<td>15</td>
<td>Ngawang Gelen &amp; others</td>
<td>Lukla - 8</td>
<td>2006</td>
<td>3</td>
<td>Private</td>
</tr>
<tr>
<td>16</td>
<td>Garden Lodge</td>
<td>Lukla - 8</td>
<td>2007</td>
<td>1</td>
<td>Private</td>
</tr>
<tr>
<td>17</td>
<td>Krishna Bahadur Tamang</td>
<td>Lukla - 8</td>
<td>2007</td>
<td>1</td>
<td>Private</td>
</tr>
<tr>
<td>18</td>
<td>Lukla micro</td>
<td>Lukla - 8</td>
<td>1990s</td>
<td>(8)</td>
<td>Agriculture Development bank loan, no more on operation</td>
</tr>
</tbody>
</table>

| Total |                                             | 45            |

The trend of establishing pelvic sets in the Pharak region began towards the end of 1990s beginning from Phakding. Mr. Dorjee Sherpa, the owner of Beer Garden Lodge, Phakding built a 2 kilowatt pelvic set in around 1998. Gradually, lodge owners of Pharak replicated the model and spread it in various villages as shown in the (Table 9.1).

The Khumbu Bijuli Company decided to sell its surplus of 120 kilowatts of power to Pharak in 1998/9. All necessary survey for extension of the electric line was completed
and Eco-Himal, the Austrian NGO raised the necessary fund for that project. The power was estimated to supply for at least four of the major villages in the Pharak, particularly to Monzo, Phakding, Lomzo and Lukla. However, the project was cancelled because of three basic reasons: 1) A few of the main lodges at Lukla did not support the project because of their existing 15 kw micro-hydro plant; 2) the landslide of Phalangthokpa created another hurdle for the line extension; and 3) SNP had reservation for the proposal owing to environmental damage over the cable line extension inside the park. SNP asked to bury the cable from Nauje to Monzo park entrance. The ultimate cancellation of the project disappointed the Pharak people, and they decided to develop their own power plants in the region.

Table 10.2: Micro-hydro Power Plant (above 10 kilowatt) in the Pharak region

<table>
<thead>
<tr>
<th>SN</th>
<th>Name of owner</th>
<th>Village &amp; ward</th>
<th>Estd. Date</th>
<th>Capacity Kilowatt</th>
<th>Actual production (Kilowatt)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lukla Micro-hydro Management Committee</td>
<td>Lukla - 8</td>
<td>2008</td>
<td>100</td>
<td>65</td>
<td>REDP/DDC, TRPAP, BZUC, Local contribution.</td>
</tr>
<tr>
<td>2</td>
<td>Ngambu-khola Micro-hydro Management Committee</td>
<td>Ngambu Wangma - 5</td>
<td>2007</td>
<td>50</td>
<td>45</td>
<td>WWF/Kadoori, BZUC, local community</td>
</tr>
<tr>
<td>3</td>
<td>Chuserma Micro-hydro Management Committee</td>
<td>Chuserma - 9</td>
<td>2009</td>
<td>35</td>
<td>35</td>
<td>WWF/Kadoori, BZUC, local community</td>
</tr>
<tr>
<td>4</td>
<td>Monzo-khola Micro-hydro Management Committee</td>
<td>Monzo - 1 (Oct.)</td>
<td>2011</td>
<td>50</td>
<td>15</td>
<td>REDP/DDC, BZMC, VDC,TRPAP, HT, Himalaya CFUG, Women’s Group, community</td>
</tr>
<tr>
<td>5</td>
<td>Pasang Lhamu Hospital</td>
<td>Lukla - 8</td>
<td>2005</td>
<td>25</td>
<td>25</td>
<td>Foreign aid (for hospital’s use only)</td>
</tr>
<tr>
<td>6</td>
<td>Proposed Thadokoshi Plant</td>
<td>Thado Koshi - 6</td>
<td>2012/13</td>
<td></td>
<td></td>
<td>Chaurikharka BZUC (to be surveyed)</td>
</tr>
</tbody>
</table>

| Total | 260 | 180         |
The SCAFP conducted a feasibility study of all the Pharak Rivers from Buwa to Monzo for micro-hydro development in the Pharak region in 1999. The feasibility study report revealed that more than 500 kilowatts of power could be generated from various rivers of Pharak. The report highlighted, for example, that more than a hundred kilowatts of power could be generated from the Monzo Khola. The Monzo Khola water flow as well as water quality scored excellent among the Pharak Rivers, although the power plant construction cost was estimated to be high due to difficulties at the site and the cost of transportation of construction materials from Kathmandu. At the same time, the International Trekking Private Limited resort wanted to construct a 30 kilowatt’s micro-hydro power plant from the Monzo-khola for its own use and distribute surplus to the local households. The Himalaya CFUG did not accept the proposal and saved the site for a bigger project in the future.

WWF/SCAFP could facilitate to find funding for 50 and 35 kilowatts of micro-hydro for Ngambukhola in Kongde CFUG and Shyamkaacha khol in Pemacholing CFUG respectively. The 50 kilowatt power plant of Ngambukhola produces more energy in monsoon when there are no tourists and demand is low and the production goes down in autumn when tourist season is on and demand is high. The power production is highly fluctuating due to the water level. If energy produced in monsoon season could all be used, there will be higher chances of saving the local forest.

WWF/SCAFP however, could not secure funding for Monzo-khola micro-hydro, even though the demand was pressing and a proposal had been put to Director Generals of Department of National Parks and Wildlife Conservation and Department of Forest,
Secretary of the Ministry of Forests and Soil Conservation and WWF’s Country Representatives.

The Tourism for Rural Poverty Alleviation Program (TRPAP) of the Sagarmatha National Park and Buffer Zone component started in 2003 for preparation of the park and buffer zone management plan (MOCTCA/TRPAP, 2007). Since this component had substantial amount of money, about five million rupees were allocated for micro-hydro projects. Phortse community received Rs. 2.3 million and the remaining was competed for by Lukla and Monzo villages. People from Lhowa and down valley voted in favor of Lukla people, and as a result Monzo lost the budget demand competition. The budget planning meeting held at Lukla by the Chaurikharka BZUC decided to invest the remaining TRPAP budget to Lukla micro-hydro project. People of the Himalaya CFUG became frustrated and threw the BZUC meeting minute book into the Dudhkhosi River while they were returning from Lukla. The BZUC member secretary from ward number 1 of the Chaurikharka BZUC was blamed by his user members for his inability to present Monzo’s case effectively in the meeting.

Another meeting was held at Yulngying a few months later. At this time, the organizer, BZUC, invited the Lukla armed police force for security of the meeting, because they feared that Monzo people would bring more participants in the meeting and cause trouble. Surprisingly, only a few people went to the meeting from the Himalaya CFUG, and no particular conflict occurred in the meeting. The grant money allocated by TRPAP for SNPBZ accordingly went to Lukla micro-hydro project. Although the ward number 1 of Chaurikharka VDC is the area of Himalaya CFUG that is in the direct impact zone of the SNP and should have got the priority for establishing the power plant,
nobody thought this through technical perspective of the park and buffer zone. The technical reason for establishing the buffer zone was to address the impact of the Sagarmatha National Park on local communities. In comparison to Lukla people, the Monzo community is a minority as their population size is smaller and is situated at a more remote area, at the direct impact zone of the Sagarmatha National Park. It is kind of elite domination, because the chairperson of the buffer zone was from Lukla and Lukla is like the headquarters of Chaurikharka VDC, where major offices, businesses and airport are situated.

As all of the Pharak and Khumbu regions, including 12 other VDCs of Solukhumbu district, were TRPAP sites, TRPAP facilitated between Rural Energy Development Program (REDP) and the Lukla community to expedite the Lukla micro-hydro construction process. The proposed scheme of 100 kilowatt for Lukla was the largest electricity project that REDP had ever supported through World Bank grant over forty districts in Nepal. The consultancy bidding process had to go through the World Bank’s standard procedure, which took a longer time than anticipated. The construction process began in 2006 and completed only in 2008. REDP, TRPAP, BZUC, DDC grant and local people’s contribution were the major funding sources for constructing the Bomkhola Lukla Micro-hydro Project.

10.3.2 Monzo-khola Micro Hydro Project

Meanwhile as TRPAP’s project planner I facilitated the process for a Monzo-khola micro-hydro project with REDP in Kathmandu. The Deputy Program Manager (DPM) agreed to visit Monzo and Thadokosi for pre-feasibility study during his site visit.
to Lukla over a weekend in 2006. The DPM prepared a short report indicating that a 50 kilowatt of power at Monzo-khola and 30 kilowatt at Thadokosi khola could be generated. On the basis of that report and REDP’s initial assistance to conduct a detailed feasibility study, the Himalaya CfUG planned to go for the project. The SNP component of the TRPAP completed its mission after promulgation of the Management Plan in December 2006. TRPAP in 2006 decided to give the community refunded Venture Capital Fund of Rs. 104,000 (US $1,300) that was trialed for initiating tourism micro-enterprise in the project area to the Monzo-khola micro hydro project (MKMHP) as seed money. The MKMHP, registered as the sub-committee of the Khumbila buffer zone user group in the park office, opened a bank account with the TRPAP grant. TRPAP also handed over REDP’s assurance commitment letter to the Monzo community. The implementation process of REDP’s project is very bureaucratic and process oriented. Because of its institutional modality, the approval process and funding have to be done by the District Development Committee (DDC). The DDC, based in the district headquarters at Salleri, is at two full days’ walking distance away.

After clearing all the procedural complication, the construction part of the project began in December 2008. The construction came to a stop in 2009 due to shortage of fund. The situation arose because of the break-up of the buffer zone grant for 2009 and 2010. This happened due to losing of the financial documents of the buffer zone management committee in the MFSC. The project received Rs. 3.2 million from the BZMC in two fiscal years. At least two million Rupees were lacking to complete the project successfully in 2011. The annual general meeting (AGM) of Monzo-khola Micro-Hydro Committee and Khumbila Buffer Zone User Group, held on July 16, 2011,
decided to make the last budget request of Rs. 1.5 million ($ 18,750) to SNPBZ. The BZMC ultimately approved one million Rupees ($ 12,500) for Monzo micro hydro project in the fiscal year 2011/12. Unfortunately, Nepal government used up all the buffer zone budget of the fiscal year for paying the allowance of discharged Maoist’s militants from cantonments and hence the money allocated for Monzo micro-hydro was not available (sherpaworld.com, 2012). Nonetheless, ninety percent of the project was finally completed by October 2011 with additional funding from REDP. Although construction works were not completed, power generation began from October 2011. Only 15 kilowatt out of 50 kilowatt capacity is being generated. The following table presents the total cost and names of the funding organizations of the Monzo Khola Micro-Hydro Project (MKMHP).

<table>
<thead>
<tr>
<th>SN</th>
<th>Names of organizations</th>
<th>Amount</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SNPBZ Chaurikharka BZUC</td>
<td>Rs. 32,00,000</td>
<td>Two fiscal years’ grant.</td>
</tr>
<tr>
<td>2</td>
<td>REDP/DDC</td>
<td>Rs. 45,00,000</td>
<td>45% of the project cost as a grant.</td>
</tr>
<tr>
<td>3</td>
<td>TRPAP/MOCTCA</td>
<td>Rs. 1,04,000</td>
<td>A token grant.</td>
</tr>
<tr>
<td>4</td>
<td>DDC Solukhumbu</td>
<td>Rs. 5,00,000</td>
<td>From local energy fund.</td>
</tr>
<tr>
<td>5</td>
<td>Chaurikharka VDC</td>
<td>Rs. 5,75,000</td>
<td>From VDC budget.</td>
</tr>
<tr>
<td>6</td>
<td>Himalayan Trust</td>
<td>Rs. 2,00,000</td>
<td>Token support.</td>
</tr>
<tr>
<td>7</td>
<td>Himalayan CFUG</td>
<td>Rs. 56,000</td>
<td>The CFUG revenue.</td>
</tr>
<tr>
<td>8</td>
<td>From timber sales from Himalaya CFUG</td>
<td>Rs. 4,94,120</td>
<td>From sales of fire damaged forest at Kongde.</td>
</tr>
<tr>
<td>9</td>
<td>Local community contribution</td>
<td>Rs. 4,70,855</td>
<td>Cash donation and labor contribution</td>
</tr>
<tr>
<td>10</td>
<td>Intrek Hotel Pvt. Ltd.</td>
<td>Rs. 6,00,000</td>
<td>(50% loan)</td>
</tr>
<tr>
<td>11</td>
<td>Thamserku Hotel Pvt. Ltd.</td>
<td>Rs. 6,00,000</td>
<td>(50% loan)</td>
</tr>
<tr>
<td>12</td>
<td>Sagarmatha Woman Group, Monzo</td>
<td>Rs. 50,000</td>
<td>From the savings of woman’s group</td>
</tr>
<tr>
<td>13</td>
<td>Himalayan Sherpa</td>
<td>Rs. 50,000</td>
<td>Token support</td>
</tr>
<tr>
<td>14</td>
<td>Sherwi Yonden Chokpa</td>
<td>Rs. 12,000</td>
<td>From Deusi-bhaiilo program in Kathmandu.</td>
</tr>
<tr>
<td>15</td>
<td>Phura Gyalzen Sherpa, donation</td>
<td>Rs. 15,000</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Total grant amount received as of July 16, 2011</td>
<td>Rs. 1,22,77,142 (UD $ 154,000)*</td>
<td>Rs. 2 million needed to complete the project.</td>
</tr>
</tbody>
</table>

*Exchange rate: 1 US $ is equivalent to Nepalese Rupees 80 (approximately).
10.3.3 Thado Kosi Micro-hydro

Chaurikharka BZUC has been allocating budget for Thadokosi micro hydro project for the last two fiscal years. The proposed micro-hydro project will be a joint initiative of Dudhkunda, Redpanda and Mushey CFUGs comprising ward number 2, 3, 4 and 6. These users still have to conduct a detailed feasibility study and decide on the implementation modality. If they are to follow the REDP model their proposal will have to go through the DDC, Solu, and if they are to go in SCAF model it will have to go through the WWF Nepal Program. Although the budget demand was high for other activities in 2011, the majority of buffer zone user groups favored allocating Rs. 5 million ($ 62,500) for the proposed Thadokosi micro-hydro project (TMHP). Chaurikharka BZUC had allocated Rs. 1.2 million ($ 15,000) for the micro-hydro project in the fiscal year 2066/67 (2010). The Chaurikharka VDC has also allocated Rs. 500,000 ($ 6,250) from the fiscal year 2067/68 (2011). If the Rs. 5 million of the BZUC is received, the TMHP will have a total allocation of Rs. 6.7 million ($ 83,750) by the end of 2012.

The energy requirement in Chaurikharka is long way from being fulfilled. The current production is not even enough for lighting. If forest is to be saved, every
household should have sufficient power supply to cook, heat and run cottage industries. Other capacity can still be developed. A major facility could be built on the Lumding Khola. This could produce 5-10 megawatt in Tong CFUG. Although a detailed feasibility study is yet to be conducted, Chaurikharka youths have already registered a company in 2012 to carry out this project. The Nepal government also has plans to produce 5 megawatt from the Solukhola and 10 megawatt from Dudhkhosi below Juwing VDC in the future, but electricity from these sites may be mixed with national grid system and be intended for other regions. Upon availability of investors, there is potential for developing mega projects in the Chaurikharka buffer zone and in the district, but the environmental and social impacts of this project including road construction and displacement of people have not yet been studied.

10.4 Governance of Buffer Zone at the Site NGOs

10.4.1 CESVI’s “Community-based Land and Forest Management Project in the Sagarmatha National Park”

CESVI\(^1\) is an Italian Non-Government Organization, which secured funding of 500,000 Euros to implement a 2.5 year land and forest management project in the Buffer Zone of Sagarmatha National Park, Nepal. CESVI also added a supplementary fund of 150,000 Euros to this project to make a total budget of 650,000 Euros. The project started in 2009 and ended in December 2012. The Kathmandu based NGO, Mountain Spirit Nepal facilitated some parts of the field implementation. CESVI hired a project Coordinator from Italy who probably did not have work experience in Nepal. An office has been established at Jawalakhel and a non-Khumbu lady is employed as the Secretary to the Program Coordinator.
A project implementation agreement has been signed between the Department of National Parks and Wildlife Conservation (DNPWC) and CESVI. Mountain Spirit (MS) Nepal was entrusted to hire one Field Project Coordinator and two Social Mobilizers. Tshiring Sherpa from Khumjung, Lhakpa Sherpa from Lukla and Mingma Tshiring Sherpa from Lhowa were hired as the Project Coordinator and Social Mobilizers respectively. Mingma Tshiring had worked with Chaurikharka Buffer Zone User Committee for two years before the current assignment. Other staffs are new to conservation projects. Ang Phinjo Sherpa of Namche, member of MS, represented MS. MS handled three of the project activities, which involved hiring staffs, managing the benefits of staff and office rentals. The total fund allocated for these activities was 67,000 Euros. Ninety thousand was grant to nine community-based projects at the rate of 10,000 Euros each. The major community-based projects included propane gas and kerosene depots establishment, plantation and fencing and trail improvement in the SNPBZ. The remaining fund of Euro 493,000 remained under the control of the Project Coordinator. The major chunk of the budget was spent on CESVI’s office staff salaries, office rent, vehicles and travel costs.

Several activities such as one-day workshops of each in nine of the Community Forest User Groups in Pharak were conducted to identify priority projects. Three 4-day long Project Cycle Management Training workshops, one for each of three Buffer Zone User Committees of SNPBZ, were conducted in the months of June and July in 2011. This training had to be provided as per the working modality of European Union to prepare project proposals in their specified format. Community forest user groups, buffer zone user groups and youth clubs participated. These trainees are expected to prepare
project proposals for their respective groups to undertake forestry, environment and infrastructure project activities. Some discussions were going on among the buffer zone user groups that they should jointly make application for revision of the Sagarmatha National Park Management Plan 2007. The allocated budget of 90,000 Euros is the fund that local user groups of the Pharak and Khumbu can apply for forests and NTFP project activities. Three one-day long trainings on sensitization of private forest management were provided to the owners of private forest holders in Pharak in August, 2011.

CESVI/Mountain Spirit received 20 project proposals from buffer zone institutions, CFUGs and clubs, and 9 proposals were granted funding of approximately 10,000 Euros (US $ 13,750) each in 2012. The successful proposals included tree nursery establishments and management at Chuserma, kerosene and propane gas depots establishment at Nauje and Lukla, reforestation and tree plantation in Khumjung, Thame, Nauje and Lhowa villages, awareness raising and capacity building trainings on fire control, replacement of wooden prayer flag poles by metal poles in Khumbu and Pharak and metal bridge construction instead of wooden bridge at Nangbuk to save forest (Mountain Spirit, 2012).

10.4.2 Conflict on Implementation of the Project

Conflict between Sagarmatha National Park, Buffer Zone Management Committee, Department of National Parks and Wildlife Conservation, Mountain Spirit and CESVI occurred after the project was implemented in 2009. The project did not move forward due to the confusion on working modality. The problem developed as CESVI signed a Memorandum of Understanding with DNPWC and implemented the
project in the field without coordinating with SNP and BZMC. CESVI hired Nepal Academy of Science and Technology (NAST) to conduct an inventory of Pharak forests without informing SNP and BZMC, and other project activities were also implemented directly in the field without SNP, BZMC authorization or consultation. SNP and BZMC asked CESVI to stop implementing the project in 2010. Mountain Spirit offered its assistance for coordination and mediation, but CESVI had reservations. This conflict delayed the overall project implementation process by almost one year. Later, it was agreed that the CESVI would explore for possible support to provide forest fire management equipments to CFUGs and BZUGs and organize Europe exposure visits for the park staffs. Mountain Spirit voiced that BZMC members should also be included in the tour. However, the visit was made to Malaysia instead of Europe in November 2012. An exposure visit of two officials from the Ministry of Forests and Soil Conservation, a representative from DNPWC, SNP and Buffer Zone Management Committee in coordination of Mountain Spirit president Nima Lama visited Mount Kinabalu National Park in Malaysia from November 10 to 17, 2012. The term of the project ended in September 2012 but got extension until December 2012 (Mountain Spirit, 2012).

10.4.3 Impression of the Project at the Local Level

The project is little known at the field level. The park and BZMC authorities do not own the project. Mountain Spirit does not have much to do at the field. MS manages only the field staff benefits and the office rents. The CESVI Project Coordinator rarely visits the field and her public relation at the field level with the working partners and the beneficiaries are poor. The CESVI Nepal got a new project Coordinator in 2012.
Mountain Spirit coordinated the field implementation part more intensively from September until December 2012. The project could have been managed more effectively if the working modality had been worked out in early phase of the project development. The project could also have played a very positive role, particularly, as it is the time when the SNPBZ did not have other donor funded projects. It is also the time when Himalayan Trust Forestry Project, WWF’s Agroforestry project and UNDP’s tourism projects have phased out and Sagarmatha National Park’s Tourism Plan 2007 is still in implementation phase.

The portion of the project budget to be spent at the community level is only 162,000 Euros (95,000 Euros for the NTFP and 67,000 Euros for field operation costs facilitated by MS) out of the total fund of 650,000 Euros. It is nearly 25 percent of the budget that gets spent in Nepal and remaining 75 percent goes back to CESVI operation. The project is not hitting the ground and meeting the expectation of the local beneficiaries.

**10.5 Summary**

Although the buffer zone of the Sagarmatha National Park is only a decade old, it has raised considerable amount of interests among the Pharak locals. It has helped address community development projects including micro-hydro development in the Pharak region. Although the buffer zone budget has to be shared on conservation, community development, conservation education, income generation and administrative operation as per its regulation, the majority of the budget has been invested in micro-hydro project justifying it as part of the conservation program.
Though the budget demand for micro-hydro development is incredibly high, Nepal government has not been able to consider the ground reality, and diverted its budget to Maoist combatants discharge project in 2012. Moreover, the fifty percent budget cut down by Nepal government in 2009 and 2010 drastically affected the regular operation of the program in the Pharak buffer zone.

Despite the buffer zone’s current structure, the government’s interference and non-support to buffer zone management program raises anxiety, suspicion and disappointment among the Pharak locals. This has also raised questions about the legitimacy of the buffer zone’s co-management governance arrangement. The Pharak people feel the roles, participations and voices of local communities do not seem to be considered sufficiently important by the SNP.
CHAPTER 11

KHUMBU PERSPECTIVE ON SNP MANAGEMENT AND GOVERNANCE

Chapter eleven illustrates the Khumbu Sherwa people’s perspective, particularly perspectives of interviewees from the villages of Khumjung, Thame, Thamo and Nauje, about Sagarmatha National Park management and governance, SNP’s impacts, the relationships between the park authority and local Sharwa community, and Sharwa’s representation in the park administration. Secondly, it discusses the ICCA forests and lakes present in the SNP and their roles in bio-cultural diversity conservation. Third, the chapter discusses SNP governance and management, and the plantation program of the Himalayan Trust. Fourth, it discusses the firewood collection rules and their impacts on forest and wildlife biodiversity conservation. Finally, it discusses the violation of the SNP’s rules and regulations by park and army staff.

11.1 Sagarmatha National Park’s Governance

Although there had been resistance from the Khumbu Sherpa community in early days of the Sagarmatha National Park’s establishment about the idea of national park, the Khumbu people’s perspective on the concept of conservation is gradually changing. In the first two decades of the park declaration in 1976, the conflict between the park and the local Sherpa community was at a critical stage. The then Panchayat regime led by autocratic royal government’s unilateral decision imposed the SNP without consulting the local Sherpa custodians. The Sherpa community resisted government imposed strict conservation rules in different ways. The centuries and millennium old forests, wildlife, common land, grassland, rivers and mountains managed and governed by the Sherpas
through the Buddhist religion and indigenous cultural practices were annexed as Sagarmatha National Park by the Hindu king led central government. Nepal government did not seek free, prior and informed consent of the Sherpa people, who are the traditional owners of these natural resources (Stevens, 1993, 2010). Sherpa’s cultural, religious, environmental and ecological belief system was not considered in the management and governance policies and plans of the park either. Consequently, the park went through different stages of contestation over the last four decades (Stevens, 1993, 1997, 2010). As the Sherpa community’s religion and culture are Buddhism based, the park receives more support from the Sherpa people rather than threat. However, the park policies and regulations did not acknowledge this aspect and did not give priority to involving Sherpa people in the decision-making process. Surya Bahadur Pandey, one of the chief wardens of the SNP in the early 1990s started a practice of organizing an annual day long community consultation workshop to minimize the level of rising conflicts. The park authority established this practice as they realized that managing the park without community participation was challenging. The local people from Thumbuk in the Pharak to all over the Khumbu regions used to assemble at the park headquarters to discuss park management and governance issues and seek solutions. The workshop was known as “jana samanwya gosthi” (people’s coordination workshop). The park authority would take minutes and implement the decisions to some extent. For example, decision of how many trees are to be permitted to cut for building a new house and repairing an old house in the park are discussed and decided in the workshop. That workshop to some degree helped reduce burgeoning conflicts between the park and people in the early 1990s. As a matter of local resentment towards the park governance, the workshop was also
nicknamed as “chiura masu” party day.” Since the buffer zone management program has been launched, the culture of organizing the people’s coordination workshop has become obsolete.

The government of Nepal in order to address the park people issues throughout Nepal, promulgated buffer zone management regulation in 1996 (KMTNC, 1998). Under the regulation, the buffer zone of the SNP was declared in 2002, buffer zone management organizations representing male and female and ethnic minority communities were formed, and the park and people conflicts have decreased considerably. Although local people’s participation in buffer zone management and governance particularly in decision-making process is weak, it has improved their relationship with the park management significantly. However, the park management and governance is purely under the jurisdiction of the park authority, where local people have no legal mechanism to take part in the decision-making process. Although the park’s governance to some extent looks like co-managed governance, but in reality, some of the Sherpas feel that they are managing the park. This is because the local people are protecting the forest and wildlife, managing the transhumance practice and tourism (Stevens, 1993; 1997). However, this is not stipulated in the park’s official policy documents (Stevens, 2010b). In fact, SNP is a government managed park, where local people’s participation in its decision-making process is formally excluded.

The local people’s perception and evaluation of the Sagarmatha National Park is that the park staffs attend the office only because it’s their job. In contrast, the Sherpa people have lived there forever and have long term interest and commitment for sustainable conservation, management and governance of the park’s natural resources.
The conservation governance through Sherpas’ perspective is not simply because of interest on usage value of natural resources, but also strong linkages between religion, culture, spirituality, aesthetic and the environment. The SNP policy and regulation have not adopted Sherpas’ perspectives as part of the bio-cultural diversity conservation (Stevens, 2010b). SNP’s program activities are based on old paradigm conservation, which only focuses on habitat and wildlife conservation, but often excludes human dimensions (Stevens, 2010b).

The majority of interviewees opined that the biodiversity of the park is naturally protected as most of the local inhabitants are Sherpa people who follow non-violent practices of Buddhism. Biodiversity such as wildlife, trees and forests are automatically conserved through Sherpa peoples’ religious and cultural values and belief system. In actuality, the local people doubt whether SNP authority alone can protect all the important biodiversity of the park and if they are trust worthy. For example, poaching cannot be controlled without local people’s support, because park authority and security personnel alone cannot monitor poachers all the time. The local people believe that mobilization of army and gamescouts just cannot ensure biodiversity conservation of the park. Conservation of local people’s religion and culture and attainment of their trust is crucial for successful conservation of biodiversity in the long-term. The knowledgeable senior citizens and Sherpa people of the park and buffer zone need to be involved in conservation governance and day to day management actions of the SNP.

SNP governance was autocratic under the King’s regime in the 1980s. It had dictatorship rule, like the Rana regime, which ruled the country for 104 years (Bhatt, 2003). This has been witnessed from the torture given by some park officials to the local
Sherpa people. The research interviewees report that some of the local people have lifelong disability from the punishment given for felling trees or collecting live firewood in the 1980s. The park authority used to keep local people in the park office for three nights hanging log on their neck and tying hands back. Some of these victims are still alive in Khumbu. The Khumbu locals fear that if the park is solely managed by the government authority, local people’s rights will be violated and their contribution will be misused. In addition, local people will instead be charged as culprits and forced be subjected to punishment. Some interviewees view that if the park is handed over to the local community, then it can be managed more effectively. Interestingly, the majority of the interviewees in Khumjung, Thame and Nauje villages concluded that co-managed governance with the power sharing at the ration of 70 percent to the local community and 30 percent to the park authority is the preferred governance in SNP. They think that the current power sharing ratio is fifty-fifty. 

Currently, SNP authority makes the final decision to issue permission of sand, firewood collection and logging on recommendation of BZUGs. One of the Khumbu interviewees, who is also a BZUG leader, says that looking at the various activities of the park such as illegal registration of park’s land at Kongde in the name of Thamserku Trekking private limited, allowing Mero Mobile private limited’s telephone tower at the park headquarters, “conservation here is merely a play.” This means that conservation by the park authority is just a show-case, but they act differently in reality. Some of the buffer zone leaders as well as community leaders also think that the local people have to seriously object to the activities of the park authority. There are chances of
misappropriating park’s land and resources as there are growing interests from private sectors in the park.

11.1.1 SNP Designated as UNESCO Natural World Heritage Site

Acknowledging the universal value of outstanding natural qualities for scientific research and aesthetic beauty of the Khumbu region, the UNESCO World Heritage Committee inscribed the entire area of the SNP in the natural World Heritage Site list in 1979 (MFSC/DNPWC, 2007). However, the significance of the WHS remained little known in the local communities till the then Member of Parliament of the Solukhumbu district Bal Bahadur K.C. initiated to extend the Shyangboche airstrip so that Twin Otter planes could land. It was initiated in 2001 without conducting Environmental Impact Assessment (EIA) of the project. As the airport extension project began, controversy developed over Pharak villages and Namche Bazar about possibly losing tourism business and over the probable degradation of natural environment of the park. In order to stop this highly politicized airstrip extension project, the concerned actors appealed to the UNESCO’s World Heritage Site headquarters in Paris. Ultimately, UNESCO WHS commissioned an experts’ team to assess the field situation and the project came to a complete stop. As a result of this controversy and decision, many local right-holders and actors became aware of WHS and its universal value.

11.1.2 Impacts of the Sagarmatha National Park

In the early two decades of the park’s establishment, local people thought that the forest, wildlife and other natural resources of the Khumbu region were park’s properties. These resources including the land and territory were dispossessed from the Khumbu
Sherpas by the state (Stevens, 1993; 1997). As a result, local people did not cooperate to conserve the forest. Instead, they tried to destroy or use more of the park’s forest resources, particularly, when park’s gamescouts created problem asking for gifts and imposed restriction on resource use. On the positive side of the park’s policy, Phurte, Pare and Theso people stopped collecting firewood and selling to teashops at Nauje, something that was routinely done before SNP was established. As a result, now the forest condition in the Bhotekosi (Thame) valley and rest of Khumbu is much better than forty years ago.

Although SNP had three Sherpa wardens in the 1980s, their posting in the SNP remained short as they got transferred after two years’ tenure. Moreover, those who introduced the park idea in early days lacked communication and public relation skills possibly because of the professional experience and political influence of the Panchayat autocratic regime. In addition, the majority of park staffs were non-local Sherpas who did not know the local culture, religion and practices. The clash of interests between non-local park staffs and local communities resulted into more destruction of forest biodiversity than conservation in early days of SNP (Sherpa, 1993). For example, more trees were felled and stored overnight by the Khumjung people from the forest of Lawishasa (Sherpa, 1993). After 10-15 years of the park’s establishment, the park staff realized these facts and attempted to accommodate local interest in the park’s management and governance to some extent. The local people gradually became aware of conservation, and the situation improved. The majority of interviewees today accept that the establishment of the park was a good idea, because it helped save forest, wildlife and natural attributes of the Khumbu region.
In general, SNP management and governance authority neither harmed the Sherpa’s Indigenous and Community Conserved Areas (ICCA s), nor gave them legal recognition in the Khumbu region. The Pangboche Sherpa community and the park authority collaboratively managed and conserved ICCA forests like Yarin in Pangboche. Nawa institution on behalf of the local community monitors and protects the forest, and the park authority takes the legal responsibility of managing the forest and wildlife without drawing any formal agreement. Tengboche monastery forest is another example where the monastery used to have sole authority to govern but later the park came as an imposed agency to conserve it. Although the park administration refused to register the monastery forest-land in the name of the monastery, it however did not interfere in the use of the monastery forest. The positive aspect of SNP’s role thus far the local Sherpa community realizes is the successful protection of the forest and wildlife. No particular problems were faced due to the presence of the park apart from some procedural differences in forest management and governance. The Khumbu residents used to collect live firewood, felling trees before 1965. After the establishment of SNP, it has restricted felling of live trees for firewood and timber. In terms of the forest use, some of the interviewees reported that apart from some bureaucratic procedure in securing the tree cutting permission from the park administration, there are no specific problems.

The local people have observed some of the direct changes that have occurred after the establishment of the SNP. Many of the Khumbu’s barren lands have been planted and greenery has increased, pollution has decreased and is better managed, wildlife species have increased and illegal forest felling has decreased. The strength of SNP is that it has generated strong conservation awareness to protect biodiversity. SNP’s
Sherpa settlements and culture are unique as they refrain from poaching and nurture both plants and animals through love, kindness and compassion. One of the interviewees believes that **biodiversity conservation has been successful to conserve Sherpa culture as well.** In addition, many of the interviewees realize that the forest and biodiversity conservation in parts of the Khumbu has been successful in part due to the 650 kilowatt micro-hydro power supply by the Khumbu Bijuli Company (KBC) since 1995, rather than SNP’s effort alone. According to interviewees of Khumjung, Thame and Nauje, the use of electric heater for cooking, heating and lighting purposes has reduced one third of the firewood pressure on local forests.

### 11.1.3 Lack of Trust between SNP and Sherpa Community

Although the Sagarmatha National Park is almost four decades old, it lacks trust of the local communities. This is because there have been several actions from the park authority, which dismayed the local communities causing to lose the trust. For example, the national park owned lodge at Lobuche has been leased out to a non-local Sherpa and permission was given to expand the lodge without proper planning. The lodge has spoiled the natural environment by encroaching the park land while extending it from a dormitory room and dining hall to twenty-five private bedroom capacity lodge and a dormitory. It has converted the natural grassland into lodge premise and fenced with compound wall. The BZUG and local community were not consulted in the decision-making process of extension or leasing-of the park lodge. Both the park authority and local community leaders report that land encroachment problem from the lodge owners inside the SNP also exist at Pheriche, Dingboche and Chukung villages. Some of the
Khumbu residents have also claimed that the summer herding shelters (Goths) at Gorakshyap as private land and built lodges. First, temporary shelters were built, and later were converted into permanent tourist lodges. The buffer zone institutions doubt if those lands were legally surveyed and registered as private land. Some local people believe that the park authority also might have illegally sold the park land to individuals (as at Kongde). Since the park did not maintain itself as a clean and transparent organization, the local people do not trust the park authority. The park authority on the other side accuses local people of encroaching the park’s land and of not supporting conservation.

The park’s monopoly and inequitable decision is also affecting the lives of low-income family. Elites are powerful and can directly deal with the park authority. But low-income people have to be bounded by the park rules and procedures. Poor and voiceless people are not in the priority of the park management and governance. In other sense, the park policies are not pro-poor and inclusive.

Many of the park officials might have taken financial advantage from the growing tourism activities in the park over the last two decades. For example, park’s permission to build a teashop at Topdanda, establishment of Mero Mobile Pvt. Ltd.’s telephone tower at the park headquarters, extension of the park’s lodge at Lobuche without Environmental Impact Assessment (EIA) are few of the violations that the park authority has committed, which undermined the trust of the local community. The local community in fact wishes firm and equitable conservation from the park authority. However, on the contrary, the function and operation of the park authority is very much individualistic, unstable, money
minded and sporadic. It is becoming more of a personal interest based management and governance rather than long-term sustainable biodiversity conservation goal of the park.

To address this, the Buffer Zone Management Committee and SNP negotiated in 2010, and have developed an SNP/SNPBZ Internal Working Procedure 2067 (2010). The procedure has been prepared in order to address the park and buffer zone management and governance issues, minimize the possible conflicts and misunderstanding between the park and the local community, and bring uniformity in working style at the institutional level. The working procedure has been prepared with good intention to bring democratic working process in the buffer zone institutions. The subject contained in the working procedure has been developed from the issues and concerns that were raised during conferences and meetings. It is the initiative of the BZMC chairperson Sonam Gyalzen Sherpa and supported by its BZUC, BZUG members and the park authority. The chief warden Bed Kumar Dhakal facilitated to draft the procedure, endorsed in the BZMC and presented to the DNPWC for endorsement. However, it is learned that the procedure is not going to be a law or rule that will be legally binding.

The local communities were forced to abide by the park made rules that restrict access to forest resources, whereas the park authority including military stationed for the park’s protection did not need to be abided. The local people have to seek logging permits along with the recommendation letter from the buffer zone institution from the park office. But army and park authority themselves do not comply with this rule and fell trees wherever they like. The park authority logged trees to build park and army posts and hotel without informing the local people. They still enjoy the monopoly privilege they had in the Panchayat regime over the park resources. Only then, the local people realized
that they did not have the forest use rights, and raised voice against the park governance in the annual coordination workshop of the park in the 1990s. As mentioned earlier, the workshop became redundant after the buffer zone management committee was formed in 2002. However, felling of park forests by the military and park authority in Khumbu occur occasionally. One example is when the army felled about a dozen trees at Phungi Thanga without informing and securing the BZUG and nawas’ tree cutting recommendation in 2008. The military deputed for the security of the park used forest without coordinating with the local people, thereby demonstrating supremacy over the local people and their resources. The incident proved to the local people that the park authority has unequal forest use and governance authority, which ultimately undermines the park and people relationship.

One of my objectives throughout this research is to identify who the real conservationists of the SNP are. A knowledgeable leader about conservation, religion, culture, tourism and politics said that first of all Sagarmatha National Park should be called “People’s Park,” and not “National Park,” and only then the conservation will be long-term and sustainable. This is because the local community does the major conservation works, but the park authority does not acknowledge this fact. As such, two different interests of the park authority and the local community contradict, and minor conflicts arise.

To justify this statement, the Khumbu Bijuli Company is a good example. The Eco-Himal, an Austrian NGO trained the local Sherpas as technicians, managers and decision-makers. They gave training about legal, technical and managerial aspects. They provided education and gave ownership of the company to the local people. The KBC
stiffs worked perfectly at any time and condition taking the responsibility seriously. KBC has been able to retain 15 local youths in Khumbu. In addition to their regular job, they are active in community service, cultural and religious activities, buffer zone programs, youth clubs and so forth.

Likewise, if the national park comes under the management and governance of the local people, it can be much more effective. In comparison to other mountain protected areas, SNPBZ has many qualified professionals who can serve the park and DNPWC. SNP has had more than 17 wardens including 3 Sharwas (Sherpa is in Nepali), but the non-Sharwa wardens hardly stay three months in a year at the duty station. Moreover, the Sherpa people are 100 percent Buddhists and their belief in Buddhist value is very strong. This belief system will provide additional value to biodiversity conservation of the Khumbu and Pharak regions. The following paragraph will also support this argument in detail.

11.1.4 Local Representation in the Park Administration

Although Sir Edmund Hillary’s initial idea was to operate the SNP through Sherpa people’s participation in management and governance, this never materialized. If SNP have had local staffs from the very beginning, the relationship between the park and the local communities could possibly have been better. The park faces multiple challenges as it has non-local staffs, who are from different cultural, religious and geographical backgrounds. Many of the management and governance issues and challenges in the SNPBZ developed on the ground because of these differences. Now the situation is worse, because all three New Zealand trained Sherpa wardens have retired.
Late Mr. Mingma Norbu Sherpa of Khunde, Dr. Lhakpa Norbu Sherpa of Thamiteng and Mr. Nima Wangchuk Sherpa of Khumjung villages became the first, second and third chief wardens of the SNP in the 1980s, respectively. Now, SNP has had only one junior gamescout Sherpa staff in the park management since 2003.

All the staff recruitments for the park are held under the National Civil Service Act of 1993. For the park ranger and warden’s positions, forestry is still the preferred expertise. In the old days, the majority of the chief wardens had forestry, or parks and recreation degrees from India or New Zealand. In order to be wardens, Sherpas have to study courses in forestry and pass the National Civil Service exam. For administrative and management positions such as junior level gamescout positions, general education will suffice. However, many Sherpa youths still do not know much about the benefits of SNP staff and the selection process. The staff recruitment process takes place either in Kathmandu or in one of the eastern Terai districts through national level competitions, which Khumbu people would hardly know about. Because of the remoteness, the national newspapers do not arrive on time to Khumbu. Therefore, Sherpas are not involved in park’s staffing.

Managing a protected area is indeed like operating a business. It involves different fields of expertise, such as forestry, wildlife, tourism, social and economic development, culture conservation and so forth, which need proper planning, implementation, management, progress review, auditing, monitoring and evaluation. There are growing interests among the Sherpa communities of the Khumbu and Pharak regions to serve in the park management, even in the gamescout and administrative level positions. At the same time, complains are mounting from the local people that the park
administration does not advertise the vacancies and gives no preference to Sherpas. Even if they advertise, it is only for formality, as they fill the positions secretly. One of the Khumbu leaders said that he was asked to withdraw the job application of his daughter for the position of a gamescout, as the park staff wanted his son to take that position. But, the problem is that non-local park staffs do not intend to stay in Khumbu. The market inflation, altitude and poor physical facilities of Khumbu discourage them from staying long or throughout the year, thereby affecting the work performance.

However, one level of positive development in the gamescout recruitment process has been noticed recently. The BZMC chairperson has been included on the staff recruitment committee, which recruits gamescout positions for the park and buffer zone. This may be a positive change if institutionalized permanently. However, if the park is to manage through local Sherpa’s religious and cultural perspectives, as per the international standard, it needs to do much more. The majority, even seventy-five percent staff in the management and governance should be Sharwa. Currently, the Sharwa youths are out-migrating in search of job opportunities, thereby gradually risking both the culture and biodiversity or bio-cultural diversity conservation.

In order to overcome this challenge, Sherpa youths need to study different subjects, such as forestry, law, tourism, agriculture and so forth and take different positions at the park and department level. Government salaries will have to be raised or supplemented somehow. If the government change its policy and involve more local people in the park management and governance it can produce very positive results in the future.
11.1.5 ICCA Forest in the SNP

There are many sacred religious forests inside the SNP that have been conserved by the Sherpa people since time immemorial through religious, cultural and livelihood interests. To name a few, Yarin forest of Pangboche, juniper grove around the Pangboche and Khumjung monasteries, Lama’s forest of Phortse, Tengboche monastery forest between Phungithanga and Tengboche, Charok, Kerok and Thame monastery forests, and Bachangchang and Mingbo forests (*natin*) at Thame, Pamjung, mani-lo and Sangdung palki-ri ridge with forest at Khumjung (Stevens, 1993). Pamjung, Mani-lo and Sangdung palki-ri ridge between Khumjung and Khunde are regarded as *mendal* (sacred grains offered to God) of Khumbila. *Nawas* take care of the *mendal* forest at Khumjung and Khunde. No one can go to the forest with implements. There are many *ne* (pilgrimage sites) in these forests. The variety of above mentioned forests located in different Khumbu villages are protected by the general public or monastic institutions for monasteries’ own use, aesthetic beauty, religious and livelihood values of the Sherpa people. If these forests were in the Pharak buffer zone, they would qualify as buffer zone “religious forests”, “community forest” under the Buffer Zone Management Regulation of 1996. Nevertheless, the Khumbu forests are all considered as the park’s forests and do not get legal recognition as a “religious forest” or “community forest” or “private forest” as in the Pharak buffer zone by the National Park and Wildlife Conservation Act of 1973. However, the local people and owners of the monasteries maintain *de facto* management authority of these forests. Each of these ICCA forests went through stages of different changes due to the imposition of the SNP governance. For example, the Bachangchang and Mingbo forests were degraded due to tree cutting for firewood as the Thame people
resented the SNP’s restrictive rules. Since SNP staff did not patrol remote forests and the local people were skeptical about the park’s idea, tree felling took place at the Mingbo’s forest in the early days of the SNP’s establishment. As a consequent, one of the interviewees believes that the Digtso lake burst out in 1985. According to Buddhism and Sherpa cultural tradition, Serkyim prayers should be offered to propitiate forest deities and spirits for tree cutting permission. The Lawudo monastery still follows this tradition.

The local people are now positively conserving the forest as they have realized that the forest is one of their resources. Moreover, the religious and cultural understanding of forest being the abode of deities or spirits (zyptak) helped to conserve the ICCA forests. These sacred, monastery and community forests are indeed Indigenous Peoples’ and Community Conserved Area (ICCA) forests, which follow one of IUCN’s conservation governance types. Nepal government has yet to review its National Parks and Wildlife Conservation (NPWC) Act of 1973 to adjust this governance into its conservation discourse.

Unlike other Khumbu villages, Nauje does not have sacred forests as such. Interestingly, the Nauje Sherpa community is interested to protect the patch of planted forest right above the monastery in the name of Nauje monastery as a sacred forest. About 5,000 seedlings of blue pine and silver fir that have been planted over five hectares of land with funding from the Himalayan Trust and SNP in 1985 have grown up impressively (Ledgard, 1996). The huge rock where the Nauje community offers prayers for Khumbila, the protector god of Khumbu, during the annual Dumje festival, annually, is located in the middle of this forest (Figure 10.1). This is the youngest sacred ICCA forest inside the SNPBZ and would be the first to have formal recognition if SNP gives
this to Nauje Sherpa community. This will also establish a history in nature conservation, where government authority respects the religious and cultural interests of the local community thereby legally devolving conservation responsibility.

Figure 11.1: Nauje village with plantation (left) and Khumbila prayer site (right)

To materialize this proposal, the Nauje Sherpa community has to call a general assembly of the Buffer Zone User Groups and Committee, Village Development Committee, Sagarmatha Pollution Control Committee, Youth Clubs, Women’s Group, Monastery Management Committee and other civil society organizations. The proposal to declare the ICCA forest will be discussed publicly, endorsed, and forwarded to the SNPBZ. The SNPBZ has to endorse it through BZMC meeting and forward it to DNPWC for its final approval. Upon receipt of Nepal government’s approval, the local community will organize a religious ceremony to consecrate the Nauje Community ICCA forest in the presence of Tengboche Rinpoche, and formalize it publicly. In the same program, Rinpoche will provide blessings to the park officials and local people to acknowledge the noble decision of Nepal government, the park warden and Buffer Zone Management Committee, and honor them publicly.
11.1.6 ICCA Lakes - Sacred Gokyo Lakes

The network of six lakes located at Gokyo at an altitude of 4,750 meters in the western edge of Ngozumpa glacier in Khumbu are holy lakes for the Buddhist communities of Khumbu and lately also a pilgrimage site for Hindus (Sherpa, 2008). People of these two different faith groups worship the lake on full moon and no moon nights. Hundreds of Hindus, particularly the government officials, such as teachers, military, police and others all the way from Juving VDC make pilgrimage during the full moon nights in August to purify and change their sacred thread on body, the Janai at the Gokyo lake every year. Local elderly Sherpa people believe that people with good hearts see a clear path in the middle of the lake during full moon and no moon nights. This path is believed to be created by the power of divine being that is residing in the lake. Local Sherpas offer karsu (burning butter on charcoal flame) for lha, lü, zyptak as per the Buddhist calendar. Childless people request for blessing to have children and some people even ask for wealth in the Gokyo Lake.

The cluster of six lakes including Gokyo has been declared as Ramsar site in September 23, 2007 by the Ramsar Convention (Sherpa, 2008). There are many lakes in the Khumbu valley, such as Imja, Thonak, Lumba nga, Kyajumba, etc, which are regarded sacred as nature spirits are believed to be residing in them. These natural lakes are therefore sacred ICCA lakes, which are conserved and governed through Sherpa people’s religious and cultural belief and value systems.

Gokyo is the highest summer herding settlement of Khumjung and Khunde people (Stevens, 1993). Now there are eight lodges and one tea shop (MCTCA/TRPAP, 2006). Environmental pressure caused by solid waste, affluent discharged from lodges
and human generated wastes have become a management challenge. Although Sherpas refrain from polluting or manipulating the lakes with the belief that spirits of the lakes will be upset and cause trouble, there are possibilities of affluent leakage from one or two lodges to the lake. However, there are many tourists and trekking staffs, who also swim and wash clothes in the lakes. Therefore, in order to inform tourists and visitors that the lakes are sacred sites and should not be polluted, two different temples, one for Buddhists and another for Hindus have been built at the side of the main lake. Both the temples are constructed by Sherpas. Signs to prohibit pollution in the lakes have been placed as well.

**Figure 11.2: Gokyo ICCA lakes (left) and signboard to visitors (right)**

*Photo courtesy: Lhakpa Gyalzen Sherpa, Nangbuk*

### 11.2 National Park Forest Governance and Management

The Khumbu people realize that all the forests, wildlife, rivers and other natural resources are their common resources. The conservation rules and regulations imposed by the government of Nepal through the SNPBZ have helped protect these important resources. The current rules of tree felling permit only three trees for building a new house, one tree for repairing an old house and allows collecting dead firewood only two times, fifteen days each time, in a year. These rules were in fact proposed by the local community and mutually agreed upon by the park and the local people through joint
decisions. As a result of this joint effort, conservation consciousness among the local community is ever growing. Nauje BZUGs for instance did not issue firewood collection permits in 2011.

Some of the Nauje elites consider that the forests, environment, habitats, wildlife and people of the Khumbu and Pharak regions are interconnected and interrelated. Loss of forest, habitats and environment at one of these two regions will affect the entire ecology, economy and culture of the park and the buffer zone all at once. For example, if the Pharak forest, environment and economy are degraded, people may migrate to the Khumbu region or elsewhere causing further environmental and economic stress. Therefore, in order to address this ecological problem and sustainable livelihood issues, forest and environment conservation in the park and Pharak buffer zone should take place.

As the forest use in the Khumbu region is guided by the park’s regulation and export of timber for construction from the Pharak region has been stopped since 1998 (see Chapter 4), the timber cost in the Khumbu region has sky-rocketed (MFSC/DNPWC, 2007). The construction lumber required for Nauje and Khumjung VDCs have been imported from Solu, Jiri, Ramechhap and Kathmandu over the last one and half decades (see Chapter 4 for detail). As the price of timber has gone up, the Khumbu people have began to use alternative materials for construction and energy. Use of iron rods, concrete, cement, plywood, steel, corrugated iron roof-sheet and glass are becoming popular in the Khumbu region. Moreover, the Khumbu people have been using alternative energy like electricity, kerosene and propane gas more intensively over the last decade, which have considerably helped save the local forests. Though these construction and energy
materials are costly and make it difficult for low-income families, the majority of Khumbu people have accepted the current system of conservation regulation.

11.2.1 Plantation in the SNP

The Himalayan Trust has planted more the 3 million seedlings on 243 hectares of land in the SNP over the last three decades. The survival rate of the plantation is 70 percent, which means more than 2.1 millions seedlings should have survived. The plantation sites are located between Nauje to Thame, Khumjung, Khunde, Mongla, Phortse, Tashinga and some in Pharak. The plantation sites are former community grazing and forest lands, which are now fenced and walled. The Sir Edmund Hillary Foundation, Canada has helped the Himalayan Trust Nepal to establish the nurseries at Phurte, Tashinga and Phortse, and generated the saplings of native species such as blue pine (*Pinus wallichiana*), Himalayan fir (*Abies spectabilis*), tree juniper (*Juniper recurva*), white beam (*Sorbus cospidata*), rhododendron (*Rhododendron barbatum*), Himalayan hemlock (*Tsuga dumosa*), etc since 1979. According to Nick Ledgard, the forest scientist of New Zealand Forest Research Institute Limited, who provided the technical and managerial assistance to the Himalayan Trust forestry project from the 1980s to 2008, if the total plantation of the Trust in the SNP is to be measured in Reducing Emissions from Deforestation and Forest Degradation (REDD), it values between US $ 6,000 to 7,000 per year (personal communication with Ang Rita Sherpa, July, 2011). On the one hand, the plantation by the Trust has improved the forests of the park, whereas on the other hand, due to the increase of forest coverage, grazing area has decreased. This was a big controversy for years. However, it did not really affect the
agropastoralism practice of the Khumbu as the number of livestock also decreased due to tourism business opportunities.

**Figure 11.3: The Himalayan Trust supported nursery at Phurte**

The Khumbu Sherpa community resisted the plantations program of the Himalayan Trust considering it as the park’s extension program in early days of the park. Thame, Khumjung and Khunde communities for example opposed the plantation with fencing considering it as park’s activity. The Thame people allowed to plant seedlings only after Dr. Kami Temba Sherpa accepted and convinced his community. Saplings at the altitude of Thame, 3,800 meter mean sea level, do not grow well at least for the first five years. Saplings planted in the late 1990s are growing well now. The plantation program of the Trust was undertaken by hiring local Sherpa laborers at Rs. 200 ($2.5) per day wage when the market labor wage was Rs. 400 (US $ 5). The low wage was considered as local people’s contribution to nature conservation. The plantation program throughout the Khumbu region was well accepted after Tengboche Rinpoche Ngawang Tenzing Zangpo and other high level officials educated the local people that plantation has good merits both naturally and religiously. Now, both SNP and buffer zone authorities take the conservation responsibility of the plantations. The local people retain the sense of ownership of the plantations through buffer zone institutions even though
this is SNP land. In most of the plantation sites, the barbed wire fences have not been
removed even though the plantations are more than twenty years old. In addition, the
Khumbila BZUC has also created a bird sanctuary at Lhakyok in 2005 and is also fenced.
The bird sanctuary is perhaps the youngest ICCA inside the SNPBZ.

The Himalayan Trust plantation program was officially handed over to the
SNPBZ in 2010. The Trust in 2009 assumed that the buffer zone program of the park
could fund the forestry program. However, because of the high demand for infrastructure
development projects in the SNPBZ it was improbable unlikely to fund the forestry
project from buffer zone budget. As per the report of the New Zealand Forest Research
Institute, because the plantation program in the SNP has reached a saturation point and
the staff engaged in the project from New Zealand and Khumbu were also aging, it was
decided the project would close in 2010 after 30 years. However, there are growing
request from the buffer zone institutions and local stakeholders for the Trust to continue
the project. The plantation project has been particularly important to mitigate climate
change effects, enhance conservation and improve livelihood. The Trust has decided to
continue the Phurte and Tashinga nurseries producing about 30-40 thousand seedlings per
year rather than hand them over to SNPBZ. The Himalayan Trust’s Vice-President, the
owner of Hauser Travel Company in Germany, has agreed to support the forestry project
of SNP from 2011. He wants to contribute money at the rate of one tree per trekker per
day of his travel company’s visitors to the SNP in order to mitigate carbon footprint. At
the same time, the Sir Edmund Hillary Foundation of Canada has also shown interest to
sponsor the project. The Himalayan Trust Nepal has already taken initiatives to continue
the forestry project for a few more years.
11.2.2 Firewood Collection Regulated in the SNP

Firewood used to be the main source of energy in the Khumbu region before completion of the 650 kilowatt of Thamo micro-hydro project in 1995 and it still is. Since then, firewood use has been decreased at least by one third in Thame, Thamo, Nauje, Khumjung and Khunde villages. Propane gas and kerosene are mostly used by the lodges in the alpine Gokyo and Kalapatthar tourist areas. Only a small amount of firewood is for sale due to firewood collection rules. Firewood and cattle dung are particularly used for heating common rooms and sometimes for cooking. One basket load of firewood at Thamo and Khumjung costs Rs. 800 ($10) and Rs. 1,500 ($19) respectively, and it hardly lasts for two days, whereas, the tariff of one kilowatt powered electric cooker per month is Rs. 700 ($9) only. The cooker is good enough to cook for 5-6 member sized family. So using electricity is multi-fold economical than the firewood. Moreover, electricity is also easier for cooking, washing dishes, good for health and environmentally friendlier than firewood. Because of the positive change brought by the power supply of KBC, the Khumbu forests conservation has been significant over the last two decades. Consequently, it has built confidence of the local people to enforce the firewood use regulations in the Khumbu region.

The buffer zone of the SNP was declared when the country was entangled in the decade long Maoist insurgency. Due to the Maoist conflict, state of emergency was declared in around 2003. The BZUC Chairpersons of Nauje and Khumjung Sonam Gyalzen Sherpa and Tenzing Tashi Sherpa respectively proposed the new firewood collection regulation to the park authority. The new rules allowed the collection of
firewood for 15 days’ periods two times in one year. One household could have a maximum of two laborers only. If anyone was present in the forest other than the announced people during the day - firewood collection period, they could be suspected to be Maoist rebels until the Peace Accord was signed in 2006. Therefore, there was the danger of firewood collectors possibly being caught in an exchange of gun-fire between Nepal and Maoist armies. To avoid this danger as well as to protect forests, firewood collection was regulated with the rules as mentioned above in around 2003. This rule was initiated at different months and years in the different Khumbu villages. Buffer zone user group of Thamo enforced this rule only beginning in 2006.

As the local people are gaining more awareness about conservation, sense of ownership of natural resources is increasing. The Nepal government has increased conservation responsibilities to the local people through buffer zone institutions. The Namche BZUC has allocated Rs. 3.1 million ($ 38,750) in the fiscal year 2068/69 (2012) for the establishment of a supply depot, which will stock propane gas and kerosene as well as salt, rice and grain in Nauje. The trail construction project of Taksindo-Tate is expected to ease the transportation of these supplies. The Namche BZUC plans to buy 20 mules with the buffer zone budget to transport these supplies. This proposed plan should make gas and kerosene cheaper and more plentiful.

Pangboche and Nauje decided not to collect firewood over the summer of 2011. Khumjung BZUC has some poor people, and therefore in order to provide facility to those poor families, provision for firewood collection for 10 days per year in total has been endorsed. Firewood is mostly required particularly in winter, during Dumje festival and other bigger events. These communities initiated and self-regulated rules are based
on reality of the local situation; they are strict and make the local communities
themselves responsible for conservation. These village based amended rule was made by
the assembly of buffer zone user groups in 2011 and would be effective from 2012.
Although personal views of the Khumbu BZUGs differ widely, some of its members in
Khumjung, Themteng and Thomo feel that they have fifty percent rights to make buffer
zone decision and rules, and fifty percent rights rest with the government.

The people of Khumbu used to cut a lot of live branches of tree juniper for
incense and lighting fire until the end of twentieth century. Now that practice has been
changed and people only burn juniper branches during big festivals, Khumbila’s prayers
and while setting out for long time from home. The Khumbu people have significantly
reduced cutting live juniper shrubs for the sake of nature conservation. Juniper incense
has been replaced by packet incense (porang), which comes from Kathmandu. However,
branches and leaves of Rhododendron anthopogan (masur in Sherpa language) from high
altitude are still burnt as incense. The villages of Khumjung and Khunde used to be full
of smokes that are being generated from burning of firewood and juniper incense until
early 2000. This is no more the case in Khumjung and Khunde except on important
religious days. As a result, juniper shrubs are better conserved today by the Sherpa
people. It takes a long time to grow juniper tree at that high altitude; for example, see the
juniper forests at Shyangboche.

In the process of securing firewood collection permits SNP game scouts used to
issue firewood collection recommendations even for live trees as dead when shingi-nawa
and BZUGs were not involved. The interviewees report that some of the game scouts have
committed such irregular activities after taking benefits from the local people. As a result
local people to some extent have caused forest degradation before the designation of buffer zone. After the implementation of the buffer zone management program, BZUGs on behalf of the local community gained the authority to issue recommendations for logging timber, firewood collection and quarrying stone. The SNP range post game scout then signs the application and then it goes to the park headquarters for final permission. Each BZUG has the responsibility to monitor firewood collection, forests and wildlife conservation. During the firewood collection time, BZUG chairpersons issue a permit to collect firewood. BZUG members and game scouts jointly monitor the firewood collection and ensure that the rules are complied by properly. There is no caste or gender based discrimination on issuing permits.

The current system of park management and governance is appreciated as access to government authority through buffer zone institution has been easier today than in the past, there is no need to worry about office time, staff’s absence in the office, etc. After advent of buffer zone management program, local people felt that the de facto management and governance shifted to local people. However, the buffer zone management institutions still do not have the legal authority to manage and govern the buffer zone fund, forests and wildlife (Paudel et al. 2011).

11.2.3 The Impact of the Firewood Collection Regulation

Although, the majority of interviewees claimed that firewood collection regulation has made a considerable contribution to forest and habitats conservation in the SNP, there are also multiple criticisms of this regulation. Critics claimed that this regulation has become the major cause of forest degradation and loss of wildlife. There
are some issues with this regulation. First, it encourages collection of firewood from living trees. When each and every household sends only one to two firewood collectors to the forest for a 15 days’ period, it is very unlikely that everybody collects only deadwood as firewood. Secondly, most of the Khumbu firewood collectors are non-local laborers who do not have concern about the local environment and conservation. So firewood collectors possibly cut trees and mix this wood with dry wood to avoid punishment. Third, the park staffs do not regularly monitor the firewood collection, which requires the BZUG members to report violation to the park staff. Many trees are reportedly cut below Nyarshey in the Namche Bazar area of Khumbu. Fourth, because of this new rule the local forests remain free of people for most of the year. As a result, the local people would not know whether non-local poachers are operating in the forest. In 2010, 900 traps targeted for musk deer were found in the forest of Phungithanga alone. In the past, the local people used to report the park staff about poachers if any strangers were encountered in forests while collecting firewood and bamboo for prayer flags or looking for cattle. This is not the case now. Poaching could be a factor in the population of musk deer and Himalayan tahr decreasing dramatically over the last decade. Some leopards could also be a factor. So this decrease in the population of wildlife needs an in-depth research to find whether it is from poaching or prey by predators.

Fifth, the firewood collection and tree felling during the Sakadawa period was strictly prohibited before SNP was established by the community. Sakadawa in spring season is very auspicious religious day in the Buddhist calendar. This is the time that trees give buds, birds migrate and wildlife breeds. Now, nobody cares about this local cultural and religious practice. The Khumbila BZUC Chairperson Lhakpa Thundu Sherpa
made a special request to Tengboche Rinpoche and BZMC Chairperson to impose a
taboo on firewood collection and tree cutting during this holy period to respect nature and
religion. However, this has not yet been materialized.

11.3 Wildlife Biodiversity of SNP and Its Governance

Conservation of wildlife and associated forests, habitats, environment and
ecosystem is the key objective of the Sagarmatha National Park. The park is home to
different endangered and threatened species of wildlife like snow leopard, musk deer,
Himalayan tahr and more than 194 bird species including Danphe, the national bird of
Nepal (MFSC/DNPWC, 2007). As mentioned earlier, even before SNP, the Khumbu
Beyul itself has been a wildlife refuge since the time of Guru Rinpoche in eighth century
AD. Wildlife needs to be nurtured with love and compassion in order to maintain the
sacredness of Khumbu. Every form of plant and animal has to be respected as a sacred
spirit and allowed to exist without any human interference and manipulations. Sherpa
people never kill any wildlife, regarding them as sacred spirits of nature that resided in
the Khumbu54. Therefore, wildlife biodiversity was protected in the Sherpa country of
Khumbu since time immemorial.

Today snow leopard (Panthera uncia), musk deer (Moschus crysogaster) and
Himalayan tahr (Hemitragus jemlahicus) are the flagship species of the park. These
animals (other than snow leopards) were protected by the customary rules and Buddhist
belief of the Khumbu beyul long before SNP was established. Those animals, however,
could have been under threat due to the increased level of forests and habitats degradation
resulting from mountaineering tourism after end of the 1960s had SNP not been
established. Since SNP was established, there have been some changes in the ecology of wildlife biodiversity in the Khumbu and Pharak region. This section will present a brief account of those changes.

11.3.1 Musk Deer and Himalayan tahr Population in SNP

No one has ever counted the number of musk deer of in the SNP. Bijaya Kattel conducted a research about musk deer at Phortse village inside SNP in 1991 (Kattel & Alldredge, 1991). The majority of the research participants of the Khumbu and Pharak reported that the musk deer population has decreased considerably over the last decade. The musk deer of SNP have been under threat from poachers of Dhading district’s Tamangs since the early 1990s. More than 21 poachers from Dhading were arrested with musk gland, dry meat, fur, trapping rope and equipments over the monsoon of 1991. They had poached more than 32 musk deer in the Dole forest alone. Many more were suspected to be killed in the Phortse and Phungithanga forests. However, plenty of musk deer could be sighted at around Lawishasha, Kyangjuma, Phungithanga, Debuche, Dole, Phortse and Phurte areas before 2000. Since then, two to three musk deer often used to visit the Phurte nursery and damage seedlings. Tourist guides, buffer zone user group members and general public have the same observation that the musk deer of SNP has decreased dramatically. The nursery manager Dachokki Sherpa once invited Zopa Rinpoche of Lawudo monastery and performed serkyim prayer to prevent musk deer damage in the Himalayan Trust funded Phurte nursery. She believed that musk deer is a zyptak (spirit of forest) and have been approaching the nursery for various reasons. Surprisingly, those musk deer are not seen in and around Phurte these days.
The Khumbu locals have gone to the forests less since Maoist conflict and abandonment of army posts in the mid 1990s. Moreover, the current system of firewood collection regulation, that is only 30 days’ firewood collection period in a year, has also limited the movement of local people in the forest. The local people do not know if there are any poachers active in the forest or not as they have not encountered them during the firewood collection seasons (when poachers may be cautious). In addition, forest patrolling by the park staff and army has decreased considerably since the buffer zone was designated. They have been more reliant on the local people for wildlife and forest monitoring. The local people also note that army and park personnel bring only poachers’ traps and equipments but fail to arrest poachers. In addition, once in 2010, right after the 15 days’ firewood collection period was over, soldiers were found building a wooden bridge over Dudh koshi. When bamboo collectors went there, army stopped them to go to that side. Later, it was found that the soldiers were cutting trees. Therefore, these incidents raise suspicion over the army and park personnel regarding whether they have been honest about conservation.

The number of snow leopards has increased since 2000 (Ale et al., 2007). Similarly, the population of common leopards in Khumbu and Pharak could be more than four (Sherpa, et al. 2008; Lovari, 2009). As the forest and shrubs of Pharak has increased significantly since the Community Forest User Groups were formed in the late 1990s, immigration of common leopards has increased considerably. A few common leopards have been reported roaming at the altitude of Nauje, Phurte, Samde, Pare, Thame, Khumjung, Khunde, Phungithanga, Tengboche and Pangboche areas. Similarly, snow leopards are also found at the same location (Ale & Boesi, 2005, Ale et al. 2007; Lovari, 2009). Local
people can distinguish both types of leopards through their different barking and roaring sounds. Both leopards prey on livestock and wildlife. Comparatively, snow leopard is less harmful to livestock than common leopard. Common leopard and snow leopard kill dogs, calves, horses and old or weak cattle. A pair of common leopards has been found to be permanently living at Khumjung and Khunde villages over the last few years. The immigration of common leopard almost to the altitude of 4,000 meters may also be the effect of climate change. Whereas, the low altitude migration of snow leopard could be due to food scarcity in the high altitude. Presence of these types of leopard predators at the same altitude and areas where musk deer and tahr graze is definitely one of the main reasons for the loss of these key species of SNP (Ale & Boesi, 2005; Ale et al. 2007).

The Himalayan Trust annual tahr count reports that 151 tahrs were recorded in 2000, the highest number ever counted between 1992 and 2008 (Ledgard, 2008). Since then the numbers have dropped sharply as shown in (Table 10.1). The increased number of tahr population caused havoc due to crop depredation in the late 1990s and the early 2000s. Tahr used to dig potato seeds at Nauje, Phurte, Thamo, Tashinga, Lawishasa, Phortse and Pangboche areas in the park. People of Khumjung even appointed tahr watchers to protect their potato yields. More than 50 tahrs could be easily sighted in one herd at Phurte in spring season in the late 1990s. This big herd used to go down to Pharak as far as Benkar and damaged vegetable, barley, wheat and potato crops over the winter at Thumbuk, Monju and Banker areas.

The tahr population of the park decreased drastically after 2003 and came down to 51 only in 2008 (Ledgard, 2008). Lovari (2009) estimates the tahr population in the SNP is about a hundred. However, the total population of tahr including those in the Pharak
buffer zone are tentatively estimated to be 269 in 2008 (Sherpa et al. 2008). The major
loss of the tahr population may be due to the increased number of snow and common
leopard in the park and buffer zone over the last decade (Ale & Boesi, 2005; Ale et al.
2007; Sherpa et al. 2008).

Table 11.1: Tahr population in the SNP (Khumbu)

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<tr>
<td>Chorang to Chule</td>
<td>81</td>
<td>79</td>
<td>75</td>
<td>15</td>
<td>29</td>
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<tr>
<td>Gangla to Thame/ Hungu</td>
<td>-</td>
<td>35</td>
<td>76</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>81</td>
<td>114</td>
<td>151</td>
<td>32</td>
<td>51</td>
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Source: Ledgard, 2008

11.3.2 Poaching in SNP

Poaching in the SNP, particularly targeting musk deer to extract its precious musk
gland is a serious problem. Although incidents of poaching in the park and Pharak buffer
zone are recorded annually, no poacher has been arrested recently. Poachers mainly use
traps to kill musk deer. They bring bicycle and motor bike chains and nylon ropes from
cities for making traps. One poacher from Dhading, who was caught and jailed in 1991
for poaching musk deer returned to Tengboche in 2010. Park administration could not
prevent him from returning as they had no proof he was poaching. SNP has more than
250 military and 34 park staff, but their effectiveness in forest and wildlife patrolling and
monitoring have decreased drastically since the 1990s. Some of the local informants
appreciate the role of park security force during Maoist insurgency for the reason that
poaching could have been more serious if there were no military presence.

Although one of the major objectives of SNP is to protect, monitor and research
wildlife, these are all weak. Scientific management of biological diversity requires
periodic research and review on status of its biodiversity. However, SNP lacks this aspect

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and there are no other NGOs working on research of wildlife in the SNP. Individual researchers on various field of studies often come to SNPBZ, but there are rarely anyone conducting research on musk deer and Danphe lately. In addition, many of the researchers do not coordinate with the local communities and institutions. Although they might have coordinated with the park, their research reports are often not provided to local people and their institutions, nor do they benefit from local knowledge (Sherpa et al. 2008). If the park authority receives reports, there is no practice of sharing the findings with public.

11.4 Park Staff and Army Violate Park’s Rules

The firewood collection and tree cutting rules that apply to the local community do not apply to the park staff, army and police. The general public’s opinion is that army personnel violate park’s rule more than the park staff in terms of resource exploitation. The park staffs are more careful now than in the past in terms of resource use. Though the security agencies get a fuel allowance from the government, they nonetheless collect firewood from the SNP forest free of cost throughout the year. They reason that they have a privilege to use the forest resources free of cost, as they are deputed for the security of people and the park. With this attitude the army felled 25 trees below Topdanda in 2010. When the chairperson of the Namche Youth Club raised concern over the unofficial felling, his house was circled by military and was threatened. The army also felled 15 trees below Theso in 2011 without informing the BZUG and nawas. This kind of action by the army personnel assigned for the protection of the park’s forest, wildlife and biodiversity indicates the unequal power relations between the park officials and local
communities. Although the behavior and attitude of army, police and park staff very much depend on their commander or leader they also reflect their institutional character. Since 2011, the buffer zone user groups restrict firewood collection by police and army, but whether this will be effective remains to be seen.

The SNP authority in 1983 played a role to remove more than 500 goats farmed by the Khumbu Sherpa community through Village Panchayat Assembly decision in order to protect the vegetation of the park. The park authority convinced the Village Panchayat to ban goat farming inside the park. The Himalayan Trust paid the compensation money to the goat owners. Interestingly, the park warden happened to be a local Sherpa, but not a non-Sherpa Hindu caste warden. Goat however is considered to be livestock of Khumbila, the guardian god of Khumbu according to rule of the Khumbu beyul. Soldiers deployed for the security of SNP however, have been keeping more than fifty goats to fulfill their ration supplies since the 1990s. People contend that if goats farmed by the local people are harmful for biodiversity conservation, then the park army also should not keep goats in the park. Moreover, slaughtering livestock in the Khumbu and Pharak Sherpa villages is against the rule of sacred beyul. Although the beyul concept was not as publicly well known in previous years as it is today, knowledgeable people were aware of it and complained about the army actions. For example, the late Pasang Namgya Sherpa (the father of Tengboche Rinpoche) informed the Nauje Sherpa community in the 1980s that livestock should not be slaughtered at the Saturday market. He reasoned that the Khumbu is Guru Rinpoche’s beyul and any killing should not take place in beyul. The Rinpoche and others also argued about this with SNP. SNP never issued a rule. Livestock killing solely for meat at the Nameche market ceased in the mid
1990s and now takes place down-valley from Pharak in Juwing VDC. However, while the park staff and army are aware of the rule of *beyul*, they still slaughter goats and chickens in their camp secretly. Because the Sherpa community stops them in the park sellers from the down valley take goats and chickens through the park entrance only at night.

Sometimes, the park staffs also slaughter livestock at Monzo and eat this meat in the Nauje office. This act of ignoring Sherpa culture and wishes violates the cultural rights of the Sherpa community as per the international human rights instruments and standards such as ILO convention 169 and UNDRIP.
CHAPTER 12

KHUMBU PERSPECTIVE ON BUFFER ZONE MANAGEMENT AND GOVERNANCE

This chapter discusses Khumbu Sharwa and non-Sharwa people’s perspectives on buffer zone management and governance. It includes the Buffer Zone Management Committee’s plan to re-introduce nawa-institution in the Thamicho area, a detailed accounts of buffer zone budget, appraisal of social inclusion issues in buffer zone governance, and institutionalization of buffer zone management program at the community level. Secondly, it analyzes the different types of tourism revenues that are generated by the Nepal government from the Khumbu region. Finally, it discusses the issues created by tourism in SNPBZ, such as over-crowding and immigration problems and concern over loss of Sherpa traditional architecture.

12.1 Khumbu People’s Perspective on Buffer Zone

The Khumbu people think that buffer zone management program has changed the face of Khumbu significantly. It has helped to improve the physical infrastructure, energy supply and conservation of forest and wildlife considerably. Moreover, it has raised conservation awareness, changed attitude of local people towards conservation and improved the park and people relationship significantly. The buffer zone infrastructure projects include trail improvement, sewage construction, drinking water supply, Khumbu multipurpose center construction, micro-hydro construction, monastery maintenance, bird sanctuary establishment and so on. Most importantly, they have strengthened their sense
of “collective ownership” over natural resources such as forest, wildlife, river, mountains and grassland. The Khumbu Sherpa community has had skepticism with the national park authority and had the feeling that the natural resources and common property of the Khumbu people are dispossessed from them (Stevens & Sherpa, 1993). The buffer zone management program has somewhat been successful to reverse this attitude, gradually transferring the decision-making role to local people and recognized their responsibility for conservation, management and governance. They also learned that forest, wildlife and natural resources of the park are their common property, rather than just SNP’s resources.

This has been witnessed from the resistance that the Thame people have posed when the Khumjun and Nauje people planned to take the Thesokhola water for their use under the financial aid of Indian Embassy in 2011. The water supply project was permitted to go ahead only after there was an agreement between the water users of Khumjun and Nauje, and the resisting Thame community. Although, it seems like a conflict between two different valley Sherpa communities, the bigger picture here is that there is a sense of possession and the rights over the water resource reserved by the Thame people can be partly credited to buffer zone program. If the water supply project had come before the buffer zone was declared in 2002, the local people might not have dared to voice as such and the park authority would have taken the decision-making role. This is obvious from the use of electricity power by Nauje, Khumjun and Khunde people that is generated from the Thame River without the consent of Thamicho people. Thamicho people did not voice against that, and the park authority allowed to construct the project and shared the energy among the different villages. However, Thomicho people these days feel that the electricity power generated from their river have been
taken by Namche, Khumjung and Khunde villages. This indicates that since the buffer zone management program was initiated, the local people are socially empowered, became aware of their resources and have strongly felt that forests and other natural resources are once again their own, and gained partial decision-making rights over natural resources of their villages, regions and territories, which SNP had dispossessed for more than three decades (Stevens, 1993, 1997, 2010b).

However, the current governance arrangement in the buffer zone institution is a weak form of collaborative management that was designed under the influence of territorializing monarchy government. This co-managed governance system has many weaknesses, which even does not provide joint signatory role to BZMC chairperson in operation of the buffer zone management fund. As mentioned in earlier chapters, the chief conservation officer (warden) holds the absolute power to form or dissolve buffer zone institutions (Jana, 2007; Sherpa, et al. 2008; Paudel, et al. 2011). Moreover, warden plays key role in submitting the five-year buffer zone management plan and annual workplan to government and facilitate to get them approved. Locally elected buffer zone leaders have no regulatory mechanism to reach to the government level to present their concerns. As a result, the local rights-holders are always under the administrative decision of the central government appointed techno-bureaucrats (Paudel, et al. 2011). The interest of the local community is to have the buffer zone budget and program independent and entrusted to BZMC and BZUCs for its operation, management and governance.

The Khumbu people consider the institutional model of the Khumbu Bijuli Company (KBC) as a successful organization. KBC has a local people’s management and
governance board, technical and administrative staffs. The company is running on profit and won the trust of local people. It has provided employment to fifteen local men, who not just work at the company but also represent buffer zone institutions, youth clubs, school management committee, monastery management committees and many other social organizations. This is the kind of conservation governance and management organization that the local people are aiming for in the SNPBZ.

12.2 Re-introduction of Nawa Institution in Thimcho

The Buffer Zone User Groups (BZUGs) of the Khumbu region have got partial authority to make decision on forest resources. They make recommendation for obtaining tree cutting permits from the park. The park authority cannot issue tree cutting permits without the recommendation of BZUGs. Nawa’s recommendation was mandatory for obtaining the permits before the buffer zone was initiated, but this has been replaced by the BZUGs over the last decade. Nevertheless, the Buffer Zone Management Committee (BZMC) has initiated to integrate nawa tradition in the buffer zone management and governance institution with an annual remuneration of Rs. 10,000 (US $ 125) per nawa from 2012. The incentive practice started with Rs. 5,000 (US $ 63) per nawa per year from the Khumjung VDC in 2010. There are altogether sixteen nawas in the Khumbila BZUC and the total incentive budget is Rs. 160,000 (US $ 2,000) for 2012.

Although nawa institution and dee system play paramount role on agropastoralism practice and biodiversity conservation, the park authority did not understand the role of nawas and dee system in the early days of its establishment (Stevens, 1993; Stevens & Sherpa, 1993). As a result, park’s restrictive policy on forest
resource management and seizure of its decision-making authority discouraged nawa institution and dee system in Namche VDC, while Khumjun VDC managed to retain the practice until today (Stevens, 1993, 1997).

Today, the traditional nawa institution exists only in the Khumjun VDC, where it regulates grazing, agriculture management, forage collection and forest management and governance through dee system (Stevens, 1993, Stevens & Sherpa, 1993). Dee is the village rule that regulates agropastoralism, agriculture, and forage harvest. Dee rules are formulated and endorsed by the village assembly to regulate the routinely movement of cattle up in the high pasture over summer to yarisa settlement and return to village in autumn for winter grazing in gunsa settlements. This season-based rotational grazing is particularly important for blight control on potato, protection of buckwheat and vegetable crops, and grazing management (Stevens, 1993). This transhumance practice is regulated through dee system in some parts of Khumbu and is implemented by nawa institution (Stevens, 1993, 1997; MFSC/DNPWC, 2007). Nawas have the authority to penalize or fine local users who violate the rules (Stevens, 1993). Likewise, Namche BZUC has also planned to integrate nawa tradition in the buffer zone institution of Thame valley and compensating for their conservation contribution at the rate of Rs. 19,800 ($248) per nawa per year from 2012.

However, the nawa institution re-introduced by the buffer zone institutions in the Thamichho would be different than the traditional ones. These nawas take roles of SNP gamescoutes as well as regulation enforcement and would not control grazing. The roles and responsibilities of the re-introduced nawa institution in the Namche BZUGs include watching and patrolling forests and monitoring if there are any traps for wildlife
poaching. The formal delegation of these responsibilities would be effective after an orientation program by the park authority planned for 2011. Whether nawas would have the authority to fine the violators was not spelled out. In this case, nawas are simply representatives of park authority with no decision-making roles, something that was criticized years ago (Stevens, 1993, Stevens & Sherpa, 1993). The Namche BZUC re-introduced nawa institution in the Thame valley from ward number 4 to 9 in 2011. Three BZUGs of Namche ward numbers 1 to 3 will not have nawas. The BZUGs felt that nawas are not necessary in Namche Bazar. The institutional nawa system was abandoned in Thame region in 1985 and in Nauje in 1979, neither of which was due to SNP. The grazing nawa were never revived by SNP, only the nawa in the 1980s (Stevens, 1993). The park and the Himalayan Trust paid Rs. 1,200 ($12.6) per nawa per year for a few years (Stevens & Sherpa, 1993). This incentive was provided to the all the nawas, but not lotok nawa of Khumbu. However, the revived nawa institution in the Nauje VDC did not last long (Stevens, 1993).

The traditional responsibilities of nawas were to regulate grazing, transhumance and blight control (Stevens, 1993, 1997), but since tourism replaced agropastoralism practice, the necessity of nawas also diminished gradually in Nauje. The younger generations in Nauje have given up livestock farming practice. Many Nauje people used zopkyoks and yaks as pack stocks to transport tourist goods and supplies until the 1990s, but now there are only four families, who keep zopkyok. Other cattle include maximum of 15 cows in whole of Nauje village. The majority of zopkyok farmers these days are non-Sherpa ethnic groups or Pharak people (MFSC/DNPWC, 2004).
Some critics of this institution raise question being pro-poor and inclusive. That is because, poor people who only have a few cattle can neither keep them in the village because of the *dee* system, nor take to high altitude pasture for grazing over summer due to high labor costs. As a result, some of the poor people of Khumjung and Khunde have sold out their cattle. On the other side, people are also reluctant to take the role of *nawa* as s/he has to deal with the rule violators who are often neighbors, friends and relatives. Penalizing violators sours the personal relation with their close ones.

The Namche BZUC allocated Rs. 100,000 ($1,250) as remuneration for seven *nawas* in six wards in 2011. Thamo, Thame, Thamiteng and Yilajung have one, two and four *nawas* respectively. Buffer zone wanted to revive the traditional *nawa* institution only. The three BZUGs of Namche Bazar do not plan to revive their *nawa* tradition. The future management and governance of forests and wildlife resources of the SNPBZ is likely to shift further to BZUGs and *nawas*, both represented by local people. With this new institutional arrangement, *nawas* and BZUGs have to join gamescouts for forest and wildlife patrolling. This is because the SNPBZ authority expects their participation in forest and wildlife monitoring, as *nawas* get annual remuneration, and BZUGs get budget for conservation and development projects collectively at the communal level as compensation for park created impacts.

SNP gamescouts are pleased to have this new institutional arrangement as they feel relieved from their duty. However, issuing tree felling, firewood collection and rock mining permits will be limited to the buffer zone institution, rather than *nawas*, where park authority will have more say. Actually the plan is for *nawa* and *yul-thim* (village assembly) to have a voice in BZUG recommendations. This may not matter much in the
case of *nawas* of Thame valley as they do not have traditional *nawa* institution, but it may matter in the case of Khumbila BZUC. This is because the Khumbila BZUC still has the traditional *nawa* institution and it may be disturbed by the new park assigned monitoring responsibilities. Therefore, clear identification, delineation and delegation of roles and responsibilities of BZUGs and *nawas* are important to avoid any confusion and overlapping of responsibilities.

The majority of the Khumbu interviewees felt that SNP initially gave an impression that all the conservation activities were solely performed by the park authority itself and did not acknowledge the conservation contribution of the local people. But after the buffer zone program was introduced, local community felt that the SNP gave more appreciations to their ownership, and responsibility for conservation. The park authority as well as the local people realized that the success of conservation achieved so far is the outcome of joint management effort made by the local people, the park authority, NGOs like Himalayan Trust, Khumbu Bijuli Company, Sagarmatha Pollution Control Committee (SPCC) and other actors.

### 12.3 Buffer Zone Budget

Sagarmatha National Park’s Buffer Zone received the first annual budget from the Ministry of Forests and Soil Conservation in 2004 (Fiscal Year 2060/61) for the initial unfunded two years after the buffer zone was declared. The Tourism for Rural Poverty Alleviation Program (TRPAP) supported the newly established buffer zone institutions by implementing its activities through the same institutions. TRPAP filled the budget gaps and empowered the buffer zone institutions through training, orientation, capacity
building activities, exposure visits, and community based planning and implementing the buffer zone rules and regulations. TRPAP supported both hardware and software programs in the interim period before release of government’s budget in 2004. Since then, the buffer zone has been receiving 50 percent of the park revenue every year except in fiscal year 2065/66 (2008), 2066/7 (2009) and 2068/69 (2012). The budgets for these first two fiscal years were initially withheld by the government for two consecutive years and eventually the grant released only half of the two years’ total in 2010. This had happened as all the financial documents submitted to the MFSC were misplaced by the government authority. The problem was later sorted out by the newly appointed Chief Warden Bed Kumar Dhakal and the BZMC Chairperson Sonam Gyalzen Sherpa. In 2012-2013, the government has cut off all the buffer zone budgets including SNPBZ of the fiscal year 2068/69 (2012) to pay off allowances of Maoist combatants to discharge from cantonments.

Although, the total budget per year of SNPBZ is 50 percent of the park’s annual income, only BZUC chairpersons and the park warden are aware of this. The majority of the BZUG members and the beneficiaries do not know the exact percentage and the amount that the buffer zone has been receiving annually. So far the SNPBZ has received a total amount of Nepalese Rs. 75,974,257.13 (US $ 950,000) in six fiscal years (Table 11.1). This is the biggest amount of money that the Khumbu and Pharak Sherpa people have ever utilized for the cause of biodiversity conservation and development. This total amount is likely the largest amount of money that local people have ever reinvested for conservation among the Himalayan national parks of Nepal. The major source of SNP buffer zone budget is tourist entrance fees and royalties generated from tree cutting, rock
mining, fines, etc. Of the mountain protected areas only Annapurna Conservation Area
receives the most tourists, and of course, the most budgets. SNP is the only Himalayan
National Park that receives the most tourists. 34,645 trekkers visited SNP in 2011 alone.
The annual tourist arrival in ACAP in 2011 was 85,314 (MOCTCA, 2011), which
remains the highest in the mountain protected areas.

**Table 12.1: Annual budgets of SNPBZ until the Fiscal Year 2068/69 (2012)**

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Years</th>
<th>Budget Amount</th>
<th>Total Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2004 (2060/61) and 2005 (2061/62) (combined)</td>
<td>Rs. 12,604,944.00</td>
<td>($ 157,561.80)</td>
</tr>
<tr>
<td>2</td>
<td>2006 (2062/63)</td>
<td>Rs. 7,254,313.13</td>
<td>($ 90,678.91)</td>
</tr>
<tr>
<td>3</td>
<td>2007 (2063/64)</td>
<td>Rs. 20,929,000.00</td>
<td>($ 261,613.00)</td>
</tr>
<tr>
<td>4</td>
<td>2008 (2064/65)</td>
<td>Rs. 12,136,000.00</td>
<td>($ 151,700)</td>
</tr>
<tr>
<td>5</td>
<td>2011 (2067/68) (50% of 2008 &amp; 2009, and 2010)</td>
<td>Rs. 23,050,000.00</td>
<td>($ 288,125)</td>
</tr>
<tr>
<td></td>
<td><strong>Grand total</strong></td>
<td><strong>75,974,257.13</strong></td>
<td>(US $ 950,000)</td>
</tr>
</tbody>
</table>

*Source: SNP, 2011*

There have been two five-year terms since the SNPBZ was declared in 2002. In
the first five-year’s tenure, the total budget of the buffer zone was distributed on the basis
of priority projects of the three BZUCs of Chaurikharka, Namche and Khumjung.
However, for the second term of the buffer zone management program, the total budget
was distributed into four equal parts. Three parts were shared among Chaurikharka,
Namche and Khumjung BZUCs, with the fourth part retained by the BZMC to meet
buffer zone management costs. Each of the BZUC gets about 25 percent of the annual
approved budget of the SNPBZ when divided into four equal parts. The BZMC
management costs include the park patrolling support to army, improvement of
cooperation between army, park staff and buffer zone management committee, that
includes meetings, farewells, awards, park staff field travel allowances, stationery, computer supplies to both the park staff and BZUC members. The management cost also includes maintenance of the SNP ranger posts and the army posts, which were abandoned during the Maoist conflict, but are now being rebuilt and manned. Phungithanga, Thame and Jorsalle posts have been re-established after the 2006 Peace Accord. Dole post is under consideration for maintenance in 2012.

The Buffer Zone expenditures have not been transparent yet. Even though the local people do not know where all the park revenues of the last thirty years went, they appear relatively content and want the buffer zone management program to continue in the future. Some critics say that the buffer zone budget has not been sufficiently invested in health, education and reforestation activities.

The government has changed the buffer zone budget approval and disbursement process from 2010, which is an additional discouragement to local communities. Previously, the annual work plan used to go to the Department of National Parks and Wildlife Conservation (DNPWC) from SNPBZ. The Ministry of Forests and Soil Conservation (MFSC) would approve the plan, and release the budget. The changed process requires submission of the annual work plan to DNPWC. The MFSC then has to forward the plan to the Ministry of Finance (MOF) for its final approval. The MOF disburses the budget to the account of Fund and Account Controller’s office (Kosha tatha Lekha Nyantrana Karyalaya) in the Solukhumbu district first, and from there it will be released to the SNPBZ’s account. If there are shortages of any bills and supporting documents, then the account is defaulted and provision of funds is stopped. This is a very bureaucratic procedure and there will be many hurdles to get buffer zone funds released.
in time to implement the annual activities efficiently and effectively. The buffer zones institutions are dismayed by the budget approval and release procedures.

12.4 Social Inclusion in Buffer Zone Governance

Many Khumbu people feel that buffer zone management program has made positive impacts in the Khumbu region. However, they also feel that the program needs to be more transparent, participatory, equitable, inclusive, and pro-poor. In Namche BZUC, three BZUGs are in the single village of Namche Bazar and remaining six BZUGs are in the Thame valley. Comparatively, people in the Thame valley are economically backward and infrastructure is poor. There are many less developed villages like Yilajung, Samde and Pare in the Namche BZUC. However, in terms of budget distribution, the six BZUGs of the Thame valley receive lesser budget than the three BZUGs of Namche. One of the reasons for this is that Rs. 4.5 million (US $ 56,250) budgets spent to build the Khumbu Multipurpose Center (KMC) has been counted as support to Thame people and their share has been reduced because of the Center. In reality, the center is a common property of Namche, Chaurikharka and Khumbila BZUCs. The project is jointly funded by SNPBZ, Eco-Himal and The Mountain Institute. Therefore, this project should be counted as a joint mega project of Namche, Khumbila and Chaurikharka BZUCs. The buffer zone management program to some extent has not been able to reach to all villages and people in the Thame valley equitably and inclusively.

In addition, Namche has twelve households of blacksmiths. Some of them are the poorest of the poor in Namche BZUC, they do not have drinking water supply, sewage
system, waste management facilities and earn their living on daily wage labor working on stone quarry, gravel making and household servant. The traditional blacksmith metal craftsmanship jobs have been totally replaced by ready-made materials and other alternatives. None of the blacksmiths (Biswokarmas) participate in the BZUGs. Biswokarmas as well as some of those poor and backward Sherpas, do not attend buffer zone meetings fearing that their suggestions and voices will not be taken into account. Sherpa leaders could make these families more welcome.

The Khumbu buffer zone management program has attempted to be gender balance in the decision-making process. Each of the BZUG has one woman among the three members’ executive committee. In most BZUGs, vice-chairpersons are females. There are also at least three female members at the BZUC level. However, the majority of the executive members at BZUG and BZUC are male and there are no female members in BZMC, which includes the three chairs of the BZUCs (Appendix 4). The buffer zone management program should review its program activities and consider poor, backward, marginalized groups and women more inclusively in all parts of its institution and activities.

In the first term of the buffer zone management institutions, some of the buffer zone user members raised concern over the use and transparency of the Khumbila BZUC’s budget programs of the Khumjung VDC. An unusual public auditing was held in 2007 in order to address people’s concerns by one vocal opponent of chair about transparency of buffer zone budget and activities. The accusation was made that the BZUC chairperson implemented most of the activities by himself with little decentralized participation and financial irregularities. In addition, most of the program activities were
concentrated in Khumjung, the largest village of the region, the home of the BZUC chairman. The public auditing clarified that there was no financial irregularities and received suggestions for making the program more decentralized and participatory.

Even in the second term of the buffer zone institutions, some user members of the Sagarmatha BZUG at Pheriche and alpine seasonal settlements of Dingboche, ward number 7 of Khumjung VDC claim that they do not get invitation and information about the buffer zone activities and meetings. Only the committee representatives in the main villages meet, plan budget activities and implement. Some of the user members of the Sagarmatha BZUG say that the BZUG executives of the group are elites of the area and general members cannot voice against them. In such cases, though the user members are unsatisfied, and they usually do not raise their voice due to social, economic and political power relation and influence.

As Namche Bazaar is the major town of the Khumbu region, the village is the most advanced one in the Khumbu region and in the district. Most of the government offices of the region are based in Namche including the SNPBZ. The buffer zone user group members in the Thame valley and even Khumbila BZUC in Khumjung VDC admit that there are certain levels of elite domination in the buffer zone institutions. The village elites play major role in budget planning, programming and decision-making. The major policy decisions are made on the basis of elites’ domination. The voices of minority and poor are little heard. This issue needs to be addressed in all three BZUCs of the SNPBZ.
12.5 Institutionalization of Buffer Zone Management Program

Although the buffer zone management program of the Sagarmatha National Park Buffer Zone is only a decade old, it has made considerable progress in terms of generating conservation and development awareness among the user members. However, in terms of mainstreaming and institutionalization, there are several factors, which need to be improved in the future. Such factors include timeframe, regular flow of budget, capacity building of local users and park staffs, transparency and accountability of budget and program activities, equitable distribution of budgets and social inclusion. So far, the local people are proud of having the buffer zone management program and anticipate carrying on with adaptive management and governance strategies. In order to achieve the twin goals of conservation and development in the Khumbu and Pharak regions, the locally active organizations, Himalayan Trust, NGOs, clubs, nawas, women groups, Khumbu Bijuli Company, Khumbu Alpine Conservation Committee, Sagarmatha Pollution Control Committee and other concerned organizations will have to continue to coordinate, share their ideas, make common working strategy, policy and plan jointly.

12.6 Tourism Revenue and New Destination in Khumbu

Tourist arrival in the Khumbu region has increased by six folds from 1970 to 1990. The region received only 1,406 tourists in 1971/72 and it increased to 8,290 in 1989/1990 (Stevens, 1993; Rogers, 1997). The number reached to 34,645 in 2011 excluding mountaineering expedition. The total revenue earned by SNP from the park permit was Rs. 3,464,500 (US $ 433,363)\textsuperscript{59} in the fiscal year 2010/11 (MOCTCA, 2011). Second, source of tourism revenue generated from the Khumbu and Pharak is the
mountaineering peak fees collected by the Ministry of Tourism and Civil Aviation in Kathmandu. The third source of revenue from tourism is the trekking peak fee that is being administered by the Nepal Mountaineering Association (NMA). NMA charges US $ 300 or $ 500 per team, depending on the heights, to climb 33 different trekking peaks. The fourth tourism revenue is Trekkers Information Management System (TIMS) fee. The Trekking Agencies’ Association of Nepal (TAAN) and Nepal Tourism Board (NTB) collect $ 20 and $ 10 from each individual trekker and organized group trekker per person per trek respectively. Apart from these formal revenues, the business and employment generated by various tourism activities such as sky diving, paragliding, mountain biking, Everest Marathon, mountain flights, rock climbing and many other activities generate considerable amount of revenues, businesses and employment opportunities at the local level. Nonetheless, none of the tourism revenue has been plowed back to the Khumbu region, other than the 50 percent of the park entrance fees, institutionally.

12.6.1 Over-crowding Issue

Over-crowding of tourists in autumn season, particularly in October is becoming an issue in the SNP. More than 9,000 tourists entered the park in October, 2010 alone. The overcrowding of tourists in lodges, on trails, bridges and narrow gorges of the Khumbu and Pharak valleys has been repeatedly talked as a management issue. The SNP Management Plan 2007 envisioned the concept of Sagarmatha Tourism Coordination Forum (STCF) meeting as a solution to address tourism and conservation related issues of the SNPBZ, like the overcrowding problem, and was held three times in Kathmandu.
However, effective implementation of STCF’s decision is yet to be seen. The Khumbu tourism entrepreneurs see the necessity of engaging more of Kathmandu based tourism operators in addressing the SNP related tourism and conservation problems. The idea behind formation of STCF was to establish linkage between tourism product and market, and make Kathmandu and international based tourism operators responsible for the biodiversity conservation of the SNP. Nepal Tourism Board (NTB), Department of National Parks and Wildlife Conservation (DNPWC) and Sagarmatha National Park and Buffer Zone (SNPBZ) are the conveners of the forum.

12.6.2 Immigration Issue

Tourism development in Khumbu is attracting immigrants from southern and neighboring parts of the district (MFSC/DNPWC, 2007). Rai, Magar, Tamang, Chetri and other ethnic groups are in-migrating to Khumbu over the last two decades as shown in Table 11.2.Sherpa and Biswokarma are local residents and other ethnic groups are recent immigrants. For example, Dingboche has six teashops, among which four of them are owned by Rai and Tamang. Although there is an understanding among the locals that no one would rent out houses to outsiders, local people build lodges without understanding costs and benefits of lodge business, and they eventually end up renting out their lodges to outsiders. Though there are village levels understanding about this issue, there are no formal written agreements. As a result, more and more outsiders are in-migrating to Khumbu and locals are out-migrating to Kathmandu or out of the country in search of job. There are a couple of Magars from Dhading district, who operate a network of chain resorts in the Khumbu and Pharak regions. They have lodges at Lukla,
Phakding, Thumbuk, and Nauje and have plans to extend it beyond. They are also planning to buy lodges in the Khumbu and Pharak regions and displace Sherpas’ business and residency in the long-term.

The second category of immigrant is laborers, who rent local huts, collect firewood and sell or pay off the house rent by providing firewood in exchange. This category of immigrant is mostly staying at Lawishasa area. These immigrants provide food and accommodation to trekking porters and in return they collect firewood when the buffer zone opened the firewood collection. The database of this category of immigrant in the Khumbu region has not been maintained yet. The trend of immigration is increasing in the Imja and Dhud-koshi valleys, but this has not yet been a problem in the Bhotekoshi (Thame) valley. At Thamo there is one family of Rai, who has also bought a piece of land, and two Biswokarma families, who live in rented houses and work as laborers.

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>BZUCs</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Namche</td>
<td>Khumbila</td>
</tr>
<tr>
<td>Sherpa</td>
<td>1422</td>
<td>2040</td>
</tr>
<tr>
<td>Biswokarma</td>
<td>48</td>
<td>5</td>
</tr>
<tr>
<td>Rai</td>
<td>5</td>
<td>22</td>
</tr>
<tr>
<td>Tamang</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>Newar</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Chetri</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Magar</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Gurung</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,500</strong></td>
<td><strong>2,122</strong></td>
</tr>
</tbody>
</table>

*Source: SNP Management Plan 2007.*
It is possible that the in-migration and out-migration practice is likely to speed up and continue as the tourism keeps progressing in the Khumbu region, if it is not regulated. As a result, the traditional local culture is changing faster than ever, and Sherpa culture and religion based conservation practice is facing difficulties in sustaining. This is already prevalent in Lukla. Second example is that the Pangboche and Debuche people protect the local forests, but forest resources are used by Pheriche, Dingboche, Lobuche and Gorakshyap lodge owners. The lodge operators there are mostly people from the lower valleys like Nauje, Khumjung, Khunde and even non-local Sherpas, who may not have contributed for protection of the forest. Since the park’s policy has not recognized forest like yarin as an ICCA owned, managed and governed by Pangboche people, they have not been able to control the local forest through taxation system for users or imposed restriction on use by outsiders. Pangboche and Debuche people are managers of the yarin and Debuche forests, but users are Pheriche, Dingboche, Lobuche, Gorakshyap and Chukung inn operators. Consequently, Pangboche and Debuche people are losing their forest resources and tourism entrepreneurs of upper villages who are earning relatively higher are gaining. This is the direct impact of forest nationalization by the central government through national park policy. As a result, the park’s policy and tourism development in the Everest route does not seem equitable, pro-poor and pro-community.

12.6.3 Sherpa Cultural Architecture

The rapid growth of tourism activities has created a challenge on maintaining traditional look of Sherpa cultural architecture of the Khumbu Sherpa houses. There is no
regulated standard for Sherpa cultural architecture to be considered while building houses or lodges in the SNPBZ. Some of the local leaders proposed this issue in the SNP management plan preparation meetings. Khumbu and Pharak villages like Nauje and Lukla have already started to lose the Sherpa cultural architect thereby changing the Sherpa cultural landscapes (MFSC/DNPWC, 2007). Several interviewees have shown that this is a critical issue and the park and buffer zone management need to consider this fact into their institutional mandate to preserve the cultural architecture. Also the SNP Management Plan 2007 includes heritage village ideas, with three different categories. However, it is yet to be implemented.
PART III

CONCLUSION
CHAPTER 13
CONCLUSIONS AND RECOMMENDATIONS

This chapter discusses conservation governance of customary ICCA forests and the nationalized Pharak forest under the District Forest Office rule and the buffer zone community forest user groups of the Pharak region. It also assesses the conservation governances of Sagarmatha National Park and Buffer Zone individually. Secondly, the chapter reviews international treaties, which are related to indigenous peoples’ rights, biodiversity conservation and assesses Nepal’s response to these instruments. In the same light, it discusses ILO Convention 169 and analyzes how different articles of the convention apply or have been addressed in the case of SNPBZ and Nepal’s protected area governance system. The chapter then discusses whether SNPBZ and Nepal’s protected area management system meet international standards of conservation and obligations to recognize indigenous peoples’ rights. Finally, the chapter provides my recommendations concerning to international law and policy to Sagarmatha National Park, Buffer Zone and Pharak Forestry.

13.1 Evaluation Discussions

The primary goal of this research project is to understand the conservation governance and management of the Sagarmatha National Park, Buffer Zone and Buffer Zone Community Forest User Groups, and assess its challenges and opportunities for policy recommendations. Although the entire area of the current SNPBZ (Pharak and Khumbu regions) is a sacred Buddhist sanctuary of the Khumbu beyul (Sherpa, 2003, 2008; Wangmo, 2005), the territorializing autocratic Panchayat regime superimposed the
Sagarmatha National Park without the free, prior and informed consent of the traditional Sherpa custodians (Stevens, 2010b). However, the Sherpa people of the regions resisted the idea of a park to protect their rights to lands, territories and natural resources in the early 1980s and beyond (Stevens, 1997; 2006). The park authority realized that conservation of biodiversity in the region cannot be achieved without full participation of the local communities. Nevertheless, SNP authority could not do much but host an annual consultation workshop to demonstrate concern with the local community in the 1990s.

Later, in the mid 1990s, when democracy was first introduced in Nepal, the concept of the buffer zone was developed at the national level to address the park and people conflict throughout the protected area management system of the state (Paudel, et al. 2007, 2010). While the people of Khumbu suffered from having been dispossessed of decision-making authority over their ancestrally inherited natural resources (Stevens, 2010b), the people of Pharak had lost their rights to access the forest resources under the District Forest Office governance (Sherpa, 2000). In other words, the Ministry of Forests and Soil Conservation, through its Department of National Parks and Wildlife Conservation and its Department of Forests, imposed SNP governance in the Khumbu and District Forest Office governance in the Pharak region respectively. There was no freedom of speech during the feudal Panchayat system, so people could not effectively oppose their state intervention before the 1990s.

The first democratic movement and the promulgation of the new constitution in the country in 1991 provided more flexibility in protected area and community forest management and governance (Paudel, et al. 2007, 2011). In this context, the active participation of local people in community forest management and governance in the
Pharak region made a revolutionary change in conservation of forest and wildlife biodiversity. The Pharak people, in facilitation of WWF’s Sagarmatha Community Agroforestry Project, strongly lobbied the government of Nepal to declare the Pharak region as the buffer zone of Sagarmatha National Park in 2002 (Sherpa et al. 2008). Since the buffer zone management program has been implemented in the Pharak and Khumbu regions, there has been considerable shift in conservation governance heading towards the ‘new paradigm’ model although it is a weak one. The following paragraphs will provide specific discussions of the Sagarmatha National Park, Buffer Zone and Buffer Zone Community Forest User Groups separately.

13.2 Customary ICCAs in Pharak Prior to 1960

Historically, the Pharak region was rich in forest, non-timber forest products and wildlife resources. The number of local population was low and forest resources were abundant. The Pharak people practiced swidden agriculture, agropastoralism and trade between Nepal and India before the advent of tourism in the 1960s. Until the decades of the 1960s, Pharak had an abundance of primary old-growth forests of blue pine, silver fir, hemlock, tree juniper, birch, rhododendron, oak and many other broadleaved temperate tree species (Sherpa, 2000). Because the habitat was intact, the area was rich in wildlife diversity, such as snow leopard, musk deer, common leopard, red panda, Himalayan tahr and many more. However, even prior to the 1960s, the Nangbuk, Kyongma and Lukla Sherpa communities had conserved their village forests for sustenance of biomass, arable farming practice, watershed protection and village scenery. These three community ICCA forests in the Pharak region did not undergo any transformation while rest of the forest
was lost due to nationalization in 1957. Therefore, this proves that forest conservation governance initiated by the local indigenous peoples remained effective while the one that is imposed by the state did not.

Secondly, the belief of regarding nature (forests, trees, wildlife, mountains, lakes and water sources) as deities, spirits and divinity exists in the Pharak region as in the Khumbu region (Sherpa & Bajracharya, 2009). But, there are no sacred forests in Pharak like lama’s forests that exist in Khumbu. However, Pharak is richer than Khumbu in terms of lu-tree diversity. Only in the village of Rimijung, there are more than nine different lu-tree species. There are many villages like Monzo, Rimijung, Ghyphe, Lhowa, Lukla and Nangbuk, where lu-tree diversity is present. Interestingly, the white beam tree species of the Pemacholing monastery, which is also associated with the history of the monastery, is spread throughout the Pharak region. Dominating lu-trees in the Pharak region are white beam species. Some of the Lu inhabited trees, particularly the oak (*Quercus semecarpesolia*), in Pharak are believed to be more than five hundred years old, and the biggest ones in the region and may be in the world. Those lu-trees are stocks of genes, species and habitats for diversity of wildlife in the region. Nonetheless, it has to be scientifically proven that the seeds produced by those old trees can germinate and propagate robustly.

**13.3 Forest Department Era Including Community Forests**

More than ninety percent of the Pharak’s old-growth forests were degraded during Forest Department Era. From the 1970’s, the District Forest Office (DFO) levied fee on Pharak’s once freely available natural forests. The period between the 1960s and the
1990s has been a devastating era for the Pharak’s forest and wildlife ecology. Forest management and governance acts and rules imposed by the Panchayat regime both dispossessed the Pharak Sherpa communities of their access rights to their forest commons and opened the commons by ending Panchayat System governance of them. Under the nationalized forest governance system, anyone from any part of the country could fell the Pharak forest by paying the timber royalty to the DFO. The royalty would then go to the treasury of central government. The Pharak Sherpa community had no authority to stop the tree felling once DFO issued the permits. Corruption by DFO staff became an institutionalized culture while issuing tree-cutting permits. The Pharak region’s ancient forests of blue pine, silver fir, hemlock, oak and juniper became the tragedy of the state-managed commons during DFO era. Tree felling in Pharak forest was like California’s gold-rush under DFO’s governance. The Pharak locals, however, could not defend forest resources in their territory under the colonizing Panchayat regime until the early 1990s. The Pharak people were uneducated, suppressed and disempowered during that era.

Consequently, not only the ancient forests, but also different species of wildlife that existed in the region since the time disappeared as the old-growth forest habitats were destroyed. Various types of endemic and migratory wildlife species such as musk deer, snow leopard, common leopard, langur monkeys, red panda, Himalayan black bear either decreased in population or vanished during the DFO governance era. As the natural habitats were severely degraded, Himalayan black bear, common leopard, red panda and langur monkeys were totally lost for at least three decades in the Pharak region (Sherpa, 2000). Those species reappeared only after the Pharak locals formed CFUGs and
protected the forest habitats (Sherpa, et al. 2008). Because of the community initiative of forest conservation under three different forest tenures, that is “community forest”, “religious forest” and “private forest” in the Pharak buffer zone, the naturally regenerated and planted forests are encouragingly coming back. The improved habitats have already attracted numbers of disappeared wildlife species such as Himalayan black bear, snow leopard and common leopard, red panda and langur monkeys over the last decade. Pharak also has a greater altitudinal range than Khumbu and more lower altitudinal areas.

As a result, the Pharak buffer zone within the 275 square kilometers’ area possibly harbors more diversity of wildlife species than the park itself. SNP has snow leopard, common leopard, musk deer and Himalayan tahr as major mammal species, whereas the Pharak buffer zone has Himalayan black bear, red panda, musk deer, goral, barking deer, langur monkey, rhesus monkey and porcupine, in addition to snow leopard, common leopard, Himalayan tahr, as major mammal species. The impact of the changing ecology of the Pharak forest and wildlife is already visible through livestock and crop depredation. Although SNPBZ had collected about Rs 1.7 million ($ 21,250) as wildlife depredation compensation fund as of 2011, it has not been distributed yet. Though the issue of wildlife depredation in the SNPBZ is not as serious as in Terai’s (low land) protected areas, the impacts are there and is likely to increase in the Pharak buffer zone. Farmers in the Pharak and Khumbu regions are predominantly low-income families whose income mostly depends on arable farming and animal husbandry. The impacts on the park and buffer zone’s wildlife are directly affecting the poor, marginal and less empowered communities. In other word, the cost of conservation is borne by the poor
people. The challenge of wildlife management along with the improvement of forest habitats and ecosystem need further attention.

The first forest local conservation movement began from Monzo, the village adjacent to SNP in 1990 during the interim government of the first democracy in Nepal. It became the benchmark for conservation revolution in the Pharak region of Nepal. Monzo locals under my leadership initiated forest conservation and management committee in 1990 and resisted logging and firewood collection by outsiders. Tree felling by outsiders and firewood collection by the Nauje people were stopped, lumbers produced out of illegal forest felling were confiscated and donated to public institutions. The forest management and conservation committee was gradually expanded to wider areas. The committee finally got legal recognition in 1993 after promulgation of the Forest Act of 1993.

With enhanced conservation awareness of the local communities, the Pharak locals demanded Nepal government to designate Pharak as the buffer zone of the SNP in 2001. Ultimately, Nepal government declared the 275 square kilometers of the Pharak region as the buffer zone of SNP in 2002. Formerly established Pemacholing and Danphe CFUGs split and became nine different buffer zone community forest user groups as per the Buffer Zone Regulation of 1996 in 1998 and 2003 respectively. The judiciary role of overseeing the CFUGs by DFO was transferred to SNP in 2003. The constitutions and operational plans of the CFUGs were registered in the SNP by undersigning a tripartite memorandum of understanding among SNP, Chaurikharka BZUC and Pharak CFUGs. All of the Pharak CFUGs are now running on second five-year term under the Buffer Zone Regulation of 1996.
The District Forest Office governance under central administration of the Department of Forests ended up with more destruction than conservation, particularly of the forest resources during Panchayat regime. Exclusionary and territorializing governance institutions imposed a top-down governance approach, which territorialized the Pharak Sherpa communities’ forest resources during DFO era. This period was marked with the most forest destruction, forest degradation, habitats and wildlife loss in the history of Pharak forest management and governance. The present generations of the Pharak communities are paying the costs of logging that occurred during DFO governance era. The Pharak people are bearing the cost of the Panchayat government rulers who had self-imposed rules of standardized community forest user groups system. However, the Nangbuk, Kyongma and Lukla ICCA forests remained intact even during DFO governance era, while the majority of common property forests of the Pharak region were degraded severely.

13.4 Community Forest User Group Governance

The devolution of community forest management and governance rights to local communities through promulgation of Forest Act of 1993 made significant changes for the improvement of forest health, habitat, wildlife biodiversity, watershed preservation, natural scenery, production of forest biomass and non-timber forest products of the Pharak region over the last one and a half decades. Moreover, forest management and governance authority partially devolved to local people through formation of community institutions, which have empowered the local people to protect, use and regenerate forest
resources not only for subsistence use, but also for social, economic, cultural and political self-sufficiency and independence (Barnhart, 2011).

The community forest management and governance system has established a sense of self-determination and autonomy over forest resource use, management and governance and made the local people socially and morally responsible for conservation (Barnhart, 2011). However, the transfer of overseeing jurisdictional role from the District Forest Office to the Sagarmatha National Park in 2003 of the nine CFUGs of the Pharak region under the buffer zone regulations of 1996 has some legal implications, which may affect the autonomy of the Pharak CFUGs in the future. Community forest, private forest and religious forest management and governance under the park and buffer zone regulations have more of a collaborative role than that of independent role which was under DFO’s jurisdiction.

Development of tourism is also adding up many challenges besides the economic benefits it has brought. There is growing interest from wealthy tourism entrepreneurs in building chain resorts in the Pharak and Khumbu regions, thereby encroaching communal and private land, forest, and using local resources like water, rocks, sand and firewood. In addition, tourism is also attracting many immigrants to the regions creating more environmental, social, cultural and economic challenges. The local traditional owners of the Pharak and Khumbu regions are using the forest governance and management policy as a means to manage immigrants. Secondly, the community forest management and governance regulations under both DFO and SNP do not envision culture and religion conservation as one of the prime objectives of community forest management. For indigenous peoples like Sherpa, forest, wildlife and other biodiversity conservation is part
of their society, culture, religion and livelihood, and therefore it must be mentioned as the primary objective in the constitution and operational plan of CFUGs. Because of the traditional cultural and religious beliefs, the Sherpa people refrain from killing any livestock and wildlife and appeal to other religious and ethnic communities to respect Sherpa’s way of life and belief system.

The community forest management, under the Forest Act of 1993 and Forest Regulation of 1995, has more autonomy than that of the National Parks and Wildlife Conservation Act of 1973 and Buffer Zone Regulation of 1996. The community forest governance institutions are represented by the local communities and indigenous peoples. They have the rights to issue or reject tree-cutting permit, make rules pertaining to forest resource conservation and management and operate its own budget and program activities. In addition, each of the CFUG could own its own seal and CFUG members could handle that independently. However, the case is different under the SNP’s jurisdiction. First of all, the CFUG is allowed to operate under a tripartite agreement between SNP, BZUC and CFUG, whereas it is a bilateral agreement between DFO and CFUG under DFO jurisdiction. Secondly, SNP withdrew all the timber seals of the CFUGs and now uses only one seal. The seal is handled by its staff rather than the CFUG members themselves. This is an indication of power recentralization by the park authority (Ribot, et al. 2006). Thirdly, CFUGs had full freedom to issue tree felling permits under DFO’s jurisdiction but SNP objects if CFUG issues tree-felling permits. In the case of tree-cutting in private forest by its owner, SNP requires recommendation letters from BZUG and CFUG. In addition, SNP staff makes field verification and seals trees for felling. These different bureaucratic arrangements make the tree-cutting process
complexes and give the clear indication that the park authority is attempting to rule over
buffer zone community forest and private forest. Moreover, there have been occasional
cases that the park staffs have shown interest in advocating and making profit from the
Pharak forest felling and timber trades rather than supporting for conservation. So the
park authority’s interests are over forest resource exploitation, use of power, and to
ultimately benefit from financial gains.

Although SNP has the overseeing responsibilities of the Pharak’s CFUGs, the first
five-year’ periods were fruitless. All of the Pharak’s nine CFUG’s bank accounts were
not transferred to the new executive committees’ control because of the lack of park’s
recommendation letter to Rastiya Banijya Bank Limited, Namche and Lukla. As a result,
all CFUGs held their financial transaction in cash and personal basis. Most of the CFUGs
conducted more than one million Rupees (US $ 12,500) of financial transactions within
their five years’ term. Financial audits were never held during the first five years’ term.
The park authority neither appointed auditors as it is mentioned in CFUGs’ constitutions,
nor monitored the progress of the CFUGs. The situation of the Pharak CFUGs under
SNPBZ remained chaotic for the first five year’s term. However, on a positive note, the
Pharak CFUGs enjoyed full autonomy over their funds, decision-making authority and
self-governance. In reality, the CFUG could not gain institutional maturity, maintain
transparency and accountability to its user members and have raised many doubts and
suspicions.

At the individual CFUG level, the majority of the CFUGs face similar problems,
namely inequity, elite capture, nepotism, lack of transparency, misuse of fund, dishonesty
and inactiveness. However, they are also functioning differently in different places. For
example, the forest use situation of Monzo is different than that of Lukla. Monzo has issues related to immigration, park and CFUG conflict, whereas forest use issues at Lukla is related to immigrant domination, Maoist cadre’s intervention, tourism pressure and so forth. As more immigrants are in-migrating to the Pharak region, the Pharak locals are using CFUG’s rules as a means to manage immigrant and protect their land, forest, economy, culture and environmental resources. The Lukla CFUG, however, is facing this challenge. The majority of the CFUGs charge forest use fees to immigrants. The Himalaya and Dudhkunda CFUGs also charge grazing fees to zapkyoks and horses kept by immigrants and users of other CFUGs.

In many of the CFUGs, tourism companies operating from the capital city of Kathmandu has become a real threat to CFUGs. Comparatively, they have lots of capital, and encroach land, exploit forest, rocks, sand, water and other natural resources to build infrastructure and compete with small scale local service providers. In several occasions, these companies have also gained control over the authority of the CFUG members by providing them with the job of a trekking guide.

On one side, the community forest management and governance practice under the Forest Act of 1993 and National Parks and Wildlife Conservation Act of 1973 through Buffer Zone Regulation of 1996 have devolved enormous power to local communities to manage and govern their forest resources. On the other side, community forest management and governance constitution and operational plan do not recognize the Sherpa people’s cultural and religious values and beliefs system, though they have strong conservation significance. Recognizing these values in the CFUG constitution could have made much difference, but this has not happened yet. In addition, the younger
generations of the Pharak Sherpas who had primary or secondary school education are leading the CFUG institutions. These youths who bear lesser knowledge and values about Buddha’s teaching are engaged in managing and governing the CFUG institutions. Two different schools of thoughts, one with western education based and another one with Buddhism and Sherpa cultural values and belief system interface in community forestry institution. Because of standardized government policy and western education based forest management institutions, the local practice of conservation through Buddhist values and belief system remains weak in CFUG governance system. This is a serious challenge for the sustainable conservation of forest and wildlife biodiversity of the Pharak region as Buddhism has conservation significance. The situation is likely to become worse if the government does not recognize indigenous peoples’ rights through amendment of its laws, policies, and decentralization.

However, CFUG management and governance system has made a drastic change in the forest ecology of the Pharak buffer zone over the last fifteen years. The CFUG system has empowered the local communities in decision-making process of their forest and grazing common resources. It has retained the sense of self-governance, autonomy and self-determination of the indigenous Sherpa people and ethnic minorities over forest and grazing common resources in the Pharak buffer zone. Though there are some communication and coordination gaps between CFUGs and BZUGs, the situation is improving. The BZUGs are taking the responsibility of community development whereas CFUGs are leading conservation of forest, wildlife and grazing commons management. Improvement of communication and coordination between two of these institutions will produce synergy effects and will also complement each other.
13.5 Sagarmatha National Park Governance

The institutional modality of the Sagarmatha National Park is based on an old paradigm model whereby it is administered by the central government through a colonial, exclusionary approach. The park policy, however, has become more people centered, as witnessed by the re-establishment of community forest use rights in the 1980s and attention to community voices through the annual workshop since 1990 (Stevens and Sherpa, 1993; Stevens, 1997). Because of the unstable political situation of the country, weak administrative leadership in governance at the park and department level, and local people's empowerment, however, the park administration to some extent seem weaker these days than in the past. At the park level, the administration suffers from the absence of the chief conservation officers (wardens) in the park headquarters. Most of the chief wardens hardly spend one third of their time in the park, and for the rest of the time, they are either in Kathmandu or elsewhere. Secondly, the park also lacks technical human resources, such as rangers. Ideally, the park should have four rangers and one assistant warden, but SNP has only one ranger and the assistant warden working at technical level in the field.

Although SNP has not formed the park advisory committee as envisioned by the management plan 2007 and draft regulations 2008, and has not recognized the community contribution to conservation formally, it unofficially functions in collaboration with the local community, particularly on issues related to decision-making on resource use and management. This is witnessed from the joint management decision of tree-cutting and firewood collection regulations. The co-management governance is
also witnessed in the process of tree-cutting, rock mining and firewood collection permit system. Additionally, the park authority issues permit for above mentioned resources only on the basis of buffer zone user group’s recommendation.

Moreover, Sherpa people’s respect to all forms of living beings as deities, spirits and forces and restriction imposed on slaughtering livestock and poaching wildlife in the Khumbu beyul (Stevens, 1993; Sherpa, 2003; Sherpa & Bajracharya, 2009) is an added value for conservation in the SNBZ. The Khumbu and Pharak Sherpa community’s taboo on slaughtering of livestock is effective all the way to Juwing VDC, which is outside the buffer zone boundary. However, the park staff and park security personnel who mostly belong to Hindu faith group do not believe in this tradition and they tend to slaughter goats and chickens in their camps.

On a positive note, the majority of Khumbu interviewees considered that the establishment of Sagarmatha National Park has made positive changes in the Khumbu region. It helped save the forest resources and improved natural greenery. However, the majority of the interviewees also felt that the park governance should be ‘co-managed’ rather than ‘government managed,’ and that the power of decision-making should be shared at the ratio of 70 percent to the local community and 30 percent to the park authority. The majority of interviewees felt that current power sharing is at the ratio of fifty and fifty. The local communities demand that the park management change its policies and consider the local communities as true conservation partners, not simply as “symbolic tokenism”. Some of the buffer zone leaders even think that the name of the park should be ‘people’s park’ rather than ‘national park’. The statement is meaningful as the park cannot be successful unless the local residents fully support and take the
responsibility of decision-making. The current park management and governance system do not recognize community rights over land, territory and natural resource as per IUCN standards of new paradigm conservation (Stevens, 2010b).

Moreover, the park staff and security personnel deployed to the SNP slaughter livestock in the sacred Khumbu beyul. The killing of living beings and committing any violent activities in the Khumbu beyul is considered offensive by Sherpa Buddhists. The army and park staffs are reported to be importing goats from the south overnight when local people are sleeping. Such action violates the indigenous Sherpa peoples’ cultural and religious rights prescribed by ILO Convention 169 and United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

In addition, the park management and security unit have local participation neither in decision-making level, nor at staffs’ level. The park staff recruitment policy is not pro-community, pro-poor, pro-woman and inclusive. It is rather power centralized and adopts colonization approach in park management and governance. The local people, though they are capable and interested to serve for the park’s administration and management, they do not get the opportunity to do so. As a result, the local Sherpa youths are out-migrating in search of job opportunities thereby putting their culture and social life in jeopardy. This is a form of economic, social, political and cultural displacement induced by the old paradigm park management policy. The situation is aggravated by tourism development, which attracts immigrants to the Khumbu and Pharak regions competing for natural and economic resources, and possibly putting risks on wildlife, habitats and ecosystem conservation (MFSC/DNPWC, 2007). This kind of non-participatory and exclusive park policy is creating major impact on loss of Sherpa
cultural values and belief system. The traditional practice of respecting natural attributes as sacred entities (Sherpa, 2003; Sherpa & Bajracharya, 2009) is gradually detaching, disintegrating and forced to lose the ground. This impact is already visible in the Khumbu and Pharak regions.

Although SNP is staffed with more than two hundred and fifty soldiers and thirty-four regular staffs, some of the wildlife species such as musk deer, Himalayan tahr and danphe population has dropped drastically since the buffer zone management program was initiated during the last decade. The effectiveness of forest and wildlife patrolling and monitoring by the park staffs and security personnel has decreased considerably. Though the population of predator species, particularly snow leopard and common leopard, has increased in the park and buffer zone over the last decade (Ale & Boesi, 2005), no one knows the cause of decreasing population of musk deer, tahr and danphe. The park authority has neither been able to conduct scientific research to investigate the fact of wildlife population decline, nor patrol effectively to safeguard the endangered species. In addition, the decision of the park administration over the park land misappropriation at Kongde, Mendalpu and Lobuche has aggravated the trust and relationship between the park authorities and the local communities over the last decade.

Since buffer zone was declared, the park staffs’ mobility in the forests has decreased noticeably. It is often reported that the park staff and security personnel have been overly reliant on the local communities for forest and wildlife conservation. Prior to regulating firewood collection, there would be people in forests to collect firewood and forest product throughout the year. The presence of the local people in the forests all round the year kept poachers away. But, since the firewood regulation has been imposed
after the Maoist conflict escalated in the early 2000s, neither the park security personnel patrolled the forests regularly, nor the local people could go to the forests freely. The local people suspect that poachers may be active in the SNPBL forests. Furthermore, since park security failed to arrest any poachers but often found poaching materials over the last few years, park and security staffs also suspect the presence of poachers.

Although the park soldiers are getting fuel allowance from the government, they occasionally collect firewood. Moreover, there have been several cases when the army personnel felled trees without informing the BZUGs and securing their recommendation letters. When local youth clubs and buffer zone representative raised concerns, army uses force and disputes with the local people. The park security unit, whose mandate is to protect the forest and wildlife, itself gets involved in felling forest, thereby showing their supremacy over the local communities and natural resources. The firewood and timber use rules that apply to general public is disobeyed by the park security unit. These occasional incidences have caused frustration, distrust and dissatisfaction among the local people. It shows the presence of unequal privileges and rights between the park security personnel and local people. This is indeed violation of the park rule, buffer zone regulation, rule of the Khumbu beyul and indigenous peoples’ rights.

The Sagarmatha National Park and Buffer Zone is rich in Indigenous Peoples and Community Conserved Area (ICCA) forests, lakes and mountains. The local belief of regarding wildlife and plant species are sacred spirits and deities are additional strengths for conservation in the SNP (Sherpa, 2008; Sherpa and Bajracharya, 2009). The agropastoral system, farming practices, grazing and forest management systems in the Khumbu region are governed by dee system and nawa institution (Stevens, 1993, 1997).
These traditional and customary practice of conserving biological diversity through cultural and religious traditions jointly termed as bio-cultural diversity (Martin, 2008) is yet to be recognized in the park’s policies and laws (Stevens, 2010b). The community conservation initiatives such as ICCAs that existed since a long time ago have been recognized as one of the conservation governances by IUCN since the fourth World Parks Congress 2003 (Colchester, 2008; Stevens 2010b; Jana, 2010). However, ICCA governance has not been recognized by SNP in spite of community demand and international pressure. The research reveals that some of the Khumbu ICCA forests degraded while opposing the park rule, but some managed to survive. For example, Bachangchang forest at Thame wog was degraded by the local community to oppose park rule while Yarin forests at Pangboche and lami nating (forest) at Phortse remained protected (Stevens, 1993, 1997).

Apart from the conservation efforts made by the park and the local communities some of the external support has also been instrumental in conserving the biological diversity of the park. The reforestation program initiated by the Himalayan Trust in partnership with the park has made considerable impact on regeneration of forests in the park. More than 21 million seedlings of native species such as blue pine, abies spectabilis, hemlock, birch and tree juniper planted at Nauje, Khumjung, Khunde, Tashinga, Phortse, Thamo and Thame valleys are growing impressively (Ledgard, 2008). Though the local communities were less involved in the plantation program and had resented the program in its early phase, the Sherpa communities look at the plantations positively now. In addition, the Nauje Sherpa community has shown interest to conserve the patch of forest above the Nauje monastery as a sacred monastery forest if the park
authority agrees (Figure 10.1, Chapter 10). If this proposal materializes, the Nauje monastery forest will probably be one of the youngest sacred ICCA forest in the SNP and Nepal. The Nauje Sherpa community will be dedicated to this, as the forest is located right above the monastery, where the annual offering to Khumbila during Dumje festival takes place.

Secondly, the Eco-Himal assisted Khumbu Bijuli Company (KBC) has made significant contribution for conservation of forest resources and improvement of the local people’s livelihood of the Khumbu region. The decision-making body as well as staffs of KBC is local people. The 650 kilowatt of micro-hydro power has reduced at least one third of firewood consumption in the park. Over the last decade, the energy supply has enabled the SNPBJ to enforce a rule that only allows firewood collection twice a year (Stevens, 2006). In addition, KBC has risen as one of the successful organizations operated by the local communities. They have managed to generate profit and at the same time provided employment to the local youths. The KBC staffs are also leaders of Buffer Zone User Groups, Youth Clubs, Monastery and School Management boards. Their contribution to the Sherpa society, culture, environment and economy is commendable. Some of the Khumbu leaders compare and contrast SNP with KBC and propose that the SNP should be operated on KBC model.

The practice of agropastoralism in the Khumbu region is gradually decreasing in terms of farmers’ numbers and livestock population (Sherpa & Bajracharya, 2009). What percentage of livestock and farmer has decreased in the park since the SNP is established is beyond the scope of this research. However, this research could gather a general sense and perception of the local communities about the trend of agropastoralism practice. The
interesting fact is that the park policy did not have any major impact agropastoralism, other than removal of 500 goats in lobby of the SNP and fencing of the plantation sites thereby limiting the grazing areas, on the grazing commons management and governance. The park authority did not intervene in the grazing commons management and governance. Tourism is replacing the traditional agropastoralism practice because of its immediate and lucrative benefits. In comparison, the yak/nak farming profession needs intensive labor service to manage the farm and is yet less lucrative. The local Sherpa youths once educated look for either tourism business or overseas jobs. The labor cost to hire outsiders is getting high. As a result, livestock farms are difficult to manage and are sold out. Although predators’ problem is also present in Khumbu, but it is usually not blamed for abandonment of agropastoralism practice in the park.

13.6 Buffer Zone Governance

The buffer zone governance of the Sagarmatha National Park including all buffer zones of Nepal is a form of community-based natural resource management (CBNRM), which is ‘co-managed’ or ‘shared’ governance. The membership composition of buffer zone institution at BZUG and BZUC levels is solely represented by local communities. But, when it comes to the BZMC level, it is a joint management structure represented by three locally elected representatives, one DDC representative and the chief conservation officer of the park becomes the ex-officio member secretary (Jana, 2007, 2009; Jana & Paudel, 2010; Paudel et al. 2011). Though the institutional structure of BZUG and BZUC looked autonomous and community managed up to the VDC (BZUC) level, it becomes ‘co-managed’ or ‘shared governance’ at the BZMC level. In addition, the BZUG and
BZUC function only as a means of decision-making advisory body and a platform to forward proposal, but they do not have any concrete decision-making authority as such. They can consider and plan development activities for their communities, but the BZMC, represented and influenced by the chief conservation officer, holds the major decision-making authority at the park level (Jana & Paudel, 2010). Moreover, the buffer zone regulations give the park warden supreme authority to approve or dissolve BZUG and BZUCs if necessary (Paudel, et al. 2011). The buffer zone fund is managed by the warden and his accountant, but the locally elected BZMC representatives including the chairperson do not have the authority to operate buffer zone account at the BZMC level (Sherpa, et al. 2008). These factors, as well as the local people’s decade long experience of working in the buffer zone management program, suggest that the buffer zone is a weak form of co-managed or shared governance. The rhetoric of community participation in BZMP therefore is simply ‘symbolic’. In addition the strengths and weaknesses of the buffer zone governance very much depend on the attitude of the park wardens rather than standardized institutional system.

Although the role of BZUG at the grassroots level is confined to prepare the annual work plan, implement the plan and endorse the financial and progress reports at the end of the fiscal year, the impacts of the buffer zone program is laudable both in the Khumbu and Pharak regions. Over a decade’s period, government has either withheld or cut off the regular flow of the SNPBZ budget for three fiscal years. The majority of the buffer zone budgets in the Khumbu have been invested in small scale infrastructure such as trail and bridge maintenance, multi-purpose training center construction and micro-hydro projects.
Likewise, the major chunk of buffer zone budgets in the Pharak region have been invested in micro-hydro projects and other small scale infrastructure projects. In contradiction of 10 percent management cost provisioned by the Buffer Zone Guidelines of 1998, SNPBZ has been allocating one fourth of the budget as buffer zone management cost at the BZMC level. Spending such a large portion of the budget at the BZMC level with no information or little information to the buffer zone users is problematic. This budget also includes army post maintenance, hospitality management cost and award to park staff and army personnel. There are both appreciations and criticisms surrounding buffer zone management program in Khumbu and Pharak. However, in totality, the majority of beneficiaries commended that buffer zone management program has changed the face of the region within a decade.

In general, the impact of buffer zone is more visible in the Khumbu region. This is because the people of Khumbu had little or no authority to make decision over natural resources before the buffer zone was declared. The participation of local communities in decision-making process of the park’s resources such as forests, wildlife, water and tourism through buffer zone institutions gradually changed attitudes of local communities. Since buffer zone institutions were formed, they secured partial rights to issue or reject logging and mining recommendations to obtain permits from the park authority for forest, rocks, sand and soil of the park. The park authority cannot issue permits without the recommendation of the BZUGs. Though nawa’s recommendation was also used in Khumjung VDC, it was replaced by BZUGs after buffer zone was launched. The SNPBZ has again decided to revive the nawa institution in the Thame (Bhote koshi) valley and provide cash incentives to the nawas of both Thame valley and
Khumbila BZUC of Khumjung from 2011 onwards. However, the roles and responsibilities of SNPBZ initiated *nawas* are likely to be similar to an extension of park’s game scouts. The Thame *nawas* may not have decision-making authority as the Khumbila BZUC *nawas*. However, this may be different in the Khumbila BZUC. Khumbila BZUC has *nawas* based on customary practices and the cash incentive from the buffer zone may strengthen or can also paralyze the institution if buffer zone grant is discontinued.

Since buffer zone management program is launched, the practice of organizing a day long people’s coordination workshop in the park headquarters has become redundant. The park related complaints can be easily tabled in the BZMC meetings and local people’s voices are communicated through buffer zone representatives. The buffer zone program therefore improved the relationship between the park and local communities and minimized the conflicts considerably. As a result, the Khumbu Sherpa communities are gradually regaining a sense of ownership over natural resources, which were dispossessed since 1965. They also feel proud of the park, Khumbu environment and resources. Nevertheless, there are still mistrusts and suspicions between the park authority and local communities due to personal attitudes and behavior of the park staffs. Though SNPBZ has developed an Internal Working Procedure 2011 (2067) to address this issue, the problem could probably be reduced but will likely remain.

Sagarmatha National Park’s Buffer Zone is the most resourceful buffer zone among the Himalayan national parks. The park is visited by more than 34,000 tourists annually, which has contributed to the park’s revenues. The recent increase of the park entrance fee for non-SAARC (South Asian Association for Regional Cooperation) and
SAARC visitors will have tremendous impact in the future. The Khumbu and Pharal Sherpa communities are committed to conservation and development if the buffer zone program continues in the future. However, the instability of the political situation, interference from the territorializing governance system by the central government is considered the major impediment by the local communities. The above threats may interrupt the regular operation of the buffer zone program at any time. Since the Maoist party came to power, they have already changed the buffer zone budget approval and disbursement process and made it very bureaucratic. In addition, the buffer zone budget of the 2012 (fiscal year 2068/69) has been diverted to pay off the Maoist combatants for their discharge. In this regard, the locals' needs and priorities are undermined and the indigenous Sherpa people’s biological and cultural diversity governance rights are ignored and violated by the state.

In Nepal, buffer zone institutions are co-managed governance and are entwined with adjacent protected areas’ governance (Paudel, et al. 2011). The major roles and responsibilities of buffer zone institutions such as user group, user committee and management committee are predominantly to implement integrated conservation and development projects (ICDPs). This contrasts with buffer zone community forest user groups (BZFUGs), which are established to govern natural resources, particularly forest resources, and have private funds generated from resource use fees and fines and also enjoy full authority to make decisions. In a way, BZCFUGs are autonomous, self-governing and self-sustaining institutions. However, the autonomy of BZCFUGs are also contested (Jana, 2009; Paudel, et al. 2011) as the park has authority over CFUG applications, management plans and constitutions (Jana & Paudel, 2010). The autonomy
of BZCFUG is ambiguous as the park authority, depending on the local context and resource availability, changes rules and attempts to maintain their supremacy over the community forest, private forest and religious forest. SNPBZ is attempting to centralize power by controlling tree-cutting stamp and transportation permit. This means that the Community Forest User Groups under the jurisdiction of District Forest Office (DFO) are more independent, self-governing and rights-based (Barnhart, 2011) than those under national park jurisdiction (Jana, 2009; Paudel, et al. 2011). In this regard, BZCFUG management is only a form of CBNRM, where indigenous peoples and local communities do not have rights to make full decision. Therefore, community participation in buffer zone forest management and governance is simply a ‘tokenism’. However, it is too soon to evaluate the buffer zone community forest management and governance of SNPBZ under the SNP jurisdiction as this started running only ten years ago.

Although Buffer Zone Management Plan has brought considerable change to the Pharak and Khumbu regions, weaknesses, risks and threats do persist in the buffer zone management and governance institution. These problems are rooted in rules and policies of SNPBZ management and governance where institutional arrangement has park domination in the decision-making processes. The local Sherpa community however has wisely coped with park administration’s domination, local conservation need and development priorities over the last decade. Consequently, the program is heading in a positive direction. However, the unstable political situation of the country remains a challenge as the political decision at the central level affects the regular and smooth operation of the buffer zone management program in the Pharak and Khumbu regions.
13.7 International Treaties and Nepal’s Response to Conservation

International treaties such as United Nations Convention on Biological Diversity, 1992 (CBD) and United Nations International Labor Organization Convention 1989 (convention number 169) are some of the important treaties, which play significant roles in the discourse of biodiversity conservation and indigenous peoples’ rights issues. United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) 2007 is a moral standard; ILO 169 is a treaty that signatory states have the obligation to implement. On the basis of these global conventions as hard law and declaration as soft law of indigenous peoples’ rights instruments, there have been significant changes on biodiversity conservation and indigenous peoples’ rights in different parts of the world over the last decade. It is seen in particular after the fifth World Parks Congress 2003 (Colchester, 2008; Stevens, 2010b, Jana, 2010; Paudel, et al. 2011). The global conservation organizations like IUCN, UNEP and many other NGOs advocate and measure conservation standards in relation to these treaties. Giving due respect to human rights and indigenous and mobile peoples’ rights while conserving biodiversity has been the international standard of new paradigm conservation (Stevens, 2010, forthcoming; Paudel, et al. 2011). Recognition of indigenous and mobile people’s rights to land, territories and natural resources with autonomy and self-determination are the core themes of these instruments (Anaya, 2009).

Nepal government, being party to these treaties, surprisingly has not been able to implement the instruments yet (Stevens, 2010b; Anaya, 2009). Nepal failed to address indigenous peoples’ rights as Nepal could not promulgate the new constitution in 2012. While in the process of assessing the implementation status of international instruments
in the case of Sagarmatha National Park, Buffer Zone (SNPBZ) and Community Forest User Group governance, it appeared that none of Buffer Zone Management Committee (BZMC) members, park officials and NGO leaders have neither read the documents nor got any orientation training from government and non-government organizations. The government policy makers and INGO leaders at the central level seemed aware of those instruments, but the majority of policy-makers and politicians being Chetri-Brahmin elites, who are non-indigenous peoples, preferred not to apply these instruments or even use the term “indigenous peoples” in particular. They instead contest the concept of “indigenous peoples” and argue who are and are not indigenous peoples in the context of Nepal, and attempt to ignore their responsibility to honor indigenous peoples’ rights. The government agencies and their supporters- the INGOs- speak the same language and indicate their solidarity in resisting indigenous peoples’ demand of rights claim. This gives the impression that the government agencies and INGOs partner in order to protect old paradigm conservation governance discourse in the SNPBZ and Nepal’s protected area management and governance system.

Sagarmatha National Park has violated indigenous peoples’ rights in many ways, such as imposing restriction on access to forest resources, no free, prior and informed consent before declaring the park, and not giving the rights to self-governance and self-determination of land, territories and natural resources. However, implementation of the buffer zone management program has given the hope that indigenous Sherpa peoples’ rights to self-governance, self-determination and autonomy over resource use and decision-making process are now respected to some extent. This is because buffer zone user groups have the rights to make plans and program activities, implement them
through buffer zone management funds and develop their society as desired. A decade long experience of buffer zone implementation indicates that the buffer zone management program is making the local communities socially, politically, economically and environmentally empowered. However, the central government’s interference in the buffer zone budget for three years (2009, 2010 & 2012) has raised concern over the sustainability of the buffer zone program itself.

13.7.1 ILO 169 and Indigenous Peoples’ Rights in Protected Area Governance of Nepal

Articles 8(j) and 10(c) of CBD, at least 14 Articles of ILO 169 and most Articles of the UNDRIP are related to indigenous and mobile peoples’ rights and conservation. For the evaluation of Nepal’s Sagarmatha National Park, Buffer Zone and Community Forestry governance, I have chosen ILO 169 as it has legal obligation and broader context in terms of indigenous and mobile peoples’ rights and conservation. Conventions are hard laws and legally binding treaties but declaration is a soft law, which carries only a moral obligation. CBD and ILO 169 have legal obligation while UNDRIP bears normative weight as a rights-proclaiming instrument (Anaya, 2009).

The ILO Convention 169 is the convention that protects the rights of indigenous and tribal peoples of the independent countries of the world. It is a legally binding international instrument open to ratification. The convention is in effect for a given country once the individual country ratifies the convention and reports the implementation status to ILO within a year of its ratification. Once it ratifies the convention, a country has one year to align legislation, policies and programs to the convention before it becomes legally binding. Countries that have ratified the Convention
are subject to supervision with regards to its implementation. The convention was endorsed by the seventy-sixth session of the General Conference of the ILO on June 27, 1989.

Nepal’s government endorsed ILO 169 on September 14, 2007. The Ministry of Local Development is the coordinating ministry to implement the ILO 169 convention in Nepal. The ministry has been assisted by ILO Nepal to launch an eighteen months’ program in first phase and a fifteen months’ program on second phase. Nepal’s new constitution, acts, policies and programs need to be prepared in line with ILO 169. As the country is going through a major political transformation, it is the right time to include the rights of 59 nationally recognized indigenous nationalities in the forthcoming constitution of the country. Nepal government’s previous constitutions and laws failed to recognize the rights of indigenous and tribal peoples. Hindu Pahari upper castes dominated these peoples for more than 240 years under a series of Hindu kings’ regimes (Anaya, 2009). Under the new constitution of the country, the acts, rules and regulations, policies, programs and plans need to be revised to ensure that the rights of the indigenous peoples are respected. However, because of the earlier political effect, the majority of the officials in government bureaucracy are of Hindu background. Implementation of ILO 169 may not be welcomed by those bureaucrats and political leaders, and they will require monitoring and possibly action by Nepal courts and by ILO for accountability and compliance. The implementation can possibly be improved through donor pressure.

All of Nepal’s protected areas, wherever they are, be it in Terai (low-land), Pahad (mid-hills) or Himal (mountains), are inhabited or were formerly inhabited by indigenous
peoples and local communities of Hindu, Muslim and Buddhist background. Some of the protected areas such as Rara, Chitwan, Koshi Tappu, and Shukla Phanta currently do not have people residing in them. However, buffer zones associated with these protected areas are populated, sometimes densely. In establishing Rara, Chitwan and Bardiya National Parks the government evicted the indigenous peoples and local communities in the 1960s and 1970s. People have been displaced also from Koshi Tappu and Shukla Phanta Wildlife Reserve in the Terai (Stevens, 1997; Jana, 2007, 2009).

Indigenous peoples worldwide have suffered irreparably from lack of freedom and democratic governance that recognizes their rights. With an objective to safeguard the rights of indigenous peoples, the ILO convention 169 of 1989 includes 44 articles concerning rights of indigenous peoples. Among the 44 articles, at least 14 articles are related to the rights of indigenous people over the use, management, and governance of natural resources and ownership rights over land, territory and natural resources. They are briefly analyzed in the following paragraphs:

13.7.2 ILO 169 Articles and Their Relevancy to SNP, SNPBZ, and Nepal’s Protected Area Governance

Article 2. 2(b) “Promoting the full.... Social, economic and cultural rights of these peoples......and their institutions.” Although indigenous peoples reside in and around most of the protected areas including Sagarmatha National Park and Buffer Zone in Nepal and maintain social, economic and cultural connections and relationships with them, they are not involved in the decision-making process. Nepal’s National Park and Wildlife Conservation Act (NPWCA) of 1973 does not engage indigenous peoples and local communities in protected area management and governance though they have historical and hereditary social, economic and cultural ties with the lands, territories and
resources. The NPWC Act does not have any provision that promotes social, economic and cultural rights of the peoples and their institutions residing in and around them. The fourth amendment to the NPWC Act included the provision of Buffer Zone Management Program in 1996. However, the elected community representatives do not have decision-making rights on protected areas. Buffer zone communities have only collaborative roles in social, economic and cultural promotion of the peoples and their institutions of only the buffer zones, not the national parks and wildlife reserves. This situation has impacted the social, economic and cultural development of the indigenous and mobile peoples (pastoralists, hunter-gatherers, swidden agriculturalists) in Nepal. Therefore, Nepal’s protected area management including SNPBF’s policies and laws have to address this concern without any delay.

Article 3 (2) “No form of force or coercion shall be used in violation of the human rights and fundamental freedoms of the peoples concerned, .......convention.” Chitwan, Rara and Bardia National Parks, Koshi Tappu and Shukla Phanta Wildlife Reserves have displaced local communities and indigenous peoples from their homelands in the name of conservation (Jana, 2007, 2009; Anaya, 2009). Most other protected areas in Nepal have restricted indigenous peoples and local communities from their customary use of forest resources, hunting, fishing and gathering by imposing new conservation rules on top of (and often in contradiction to) their traditional and customary governance and management practices (Stevens, 1997; Jana, 2007, 2009). Sherpa people of SNPBF do not hunt or fish, but they suffered from not having access rights to forest resources to some extent (Stevens, 1997; 2010b). This is how National Park and Wildlife Conservation Act violated the rights of the indigenous and tribal peoples.
Article 4 (1) "Special measures shall be adopted as appropriate for safeguarding the persons, institutions, property, labor, cultures and environment of the peoples concerned." Indigenous peoples and local communities residing in and around protected areas of Nepal including SNPBZ cannot fully enjoy their indigenous and human rights. The rules, regulations and policies of the protected area management system of Nepal including SNPBZ are based on "top-down", "protectionist" or "old paradigm" models of conservation that emphasize strict nature preservation and do not recognize local people's institutional, property, labor, cultures and environmental rights (Stevens, 2010b; Paudel, et al. 2011). In order to have successful biodiversity conservation, the maintenance of local ownership, governance and management is important. The indigenous peoples' local institutions and administrative bodies and their rights to maintain ownership over resources should be recognized. Most of the protected areas and buffer zones have local and traditional resource governing and managing institutions. Sagarmatha National Park has nawa institutions and dee system as traditional resource governance and management system. Those institutions and system are not integrated in the protected area management and governance policies, plans and institutions. SNP and BZ regulations and guidelines have to recognize these local institutions and practices, otherwise, SNP and BZ continue to violate indigenous peoples’ rights. All the protected areas, except Kanchenjunga Conservation Area, are managed on old paradigm model. Therefore, in order to provide institutional, property, labor, cultural and environmental rights to the indigenous peoples, the National Park Act of 1973 needs to be revised.

Article 5 states that "the social, cultural, religious and spiritual values and practices of indigenous peoples shall be recognized and protected." Like other
indigenous peoples of the world, Nepal’s indigenous peoples including Sherpa people have their own social, cultural, religious and spiritual values, beliefs and practices. Those values, beliefs and practices have established long-term relationships with nature and natural resources, and make an enormous contribution to biodiversity conservation, management and governance. The Sherpa people of SNPBZ have significant contribution for conservation through Buddhist beliefs and values of non-violence, something the Nepal government has yet to acknowledge. Sherpa people belief trees, forests, wildlife, mountains and water sources as abode of deities and spirits and refrain from any disturbances to them. These beliefs and practices have helped conserve biodiversity of the Sagarmatha National Park and Buffer Zone. But, Nepal government has not yet recognized and protected such social, cultural, religious and spiritual values and practices of indigenous peoples.

Article 6 states that “the Indigenous Peoples can freely participate in decision-making process in elective institutions and administrative and other bodies responsible for policies and programs which concern them.” Nepal’s protected area management and governance rules, regulations, policies and programs are based on state implementation of old paradigm conservation. The National Park and Wildlife Conservation Act of 1973 is the guiding principal document, and it was prepared when Nepal had an autocratic Panchayat Hindu-monarchy regime. This law, as well as the conservation practitioners of the old paradigm, did not recognize the rights of local indigenous peoples and communities to participate in decision-making or to even openly discuss the ownership, governance and management of the park and buffer zone (Stevens, 2010b; Anaya, 2009). Nepal’s protected areas, including its conservation areas (which are co-managed by the
government, NGOs, and communities) were established solely on the decision of the government. The buffer zones of Nepal’s national parks and wildlife reserves were also established under the regulations prepared solely by the government without consultation of the local communities and indigenous peoples.

Article 6 (b) “Establish means … decision-making in elective institutions and administrative and other bodies responsible for policies and programs which concern them.” The indigenous peoples living in and around protected areas in Nepal do not have any decision-making authority and they have not had any representation in elective institutions and administrative bodies governing the protected areas. Often, the central government hired protected area staffs are non-local and non-indigenous peoples. In fact, there are no indigenous peoples-based customary elective institutions and administrative policies in existence so far. SNP has only one local staff and no local representation in the decision-making process. Therefore, the interest of local people needs to be represented through formal institutional decision-making and administrative representation by amending the National Park and Wildlife Conservation Act of 1973.

Article 7 states that “the peoples concerned shall have the right to decide their own priorities ….. for their lives, beliefs, institutions and spiritual well-being and the lands they occupy or otherwise use, and to exercise control, to the extent possible, over their own economic, social and cultural development.” In addition, they shall participate in the formulation, implementation and evaluation of plans and programmes for national and regional development which may affect them directly. Indigenous peoples have the rights to make their own decisions for any development priorities that may affect their lives and livelihoods. Their development needs, priorities and interests should be fully included in
local, regional and national development plans and policies. They have the rights to take full participation in formulation, implementation, evaluation and monitoring of the social, economic and cultural development plans, which may affect their lives, beliefs, institutions and spiritual well-being and the lands they occupy or otherwise use, and to exercise control. Nepal’s NPWC Act has imposed limitations and restriction over the use, management and governance of such natural resources, which were occupied, used and governed by the respective indigenous peoples. This violates indigenous and tribal peoples’ rights to make decisions for their development priorities.

*Article 8 states that “the indigenous peoples shall have the right to retain their own customs and institutions.”* Nepal’s protected areas including SNP have been established under internal territorialization, which suppressed indigenous peoples’ customary laws (Vandergeest & Peluso, 1995). In addition, the government imposed centralized national laws to govern and manage protected areas. Although the customary laws of indigenous peoples and tribal communities are often more effective than the central government’s territorializing laws, the government did not understand the importance of the local and traditional customary-law system. For example, in SNP the government has not officially recognized the *nawa, pembu* (village leader) and *gembu* (regional leader) institutions, *dee* system and schools in Sharwa (Sherpa) language to govern and manage forest, agropastoralism and agriculture. These conflicts between state imposed laws and the customary laws of indigenous peoples in Nepal’s protected area management and governance have raised questions about the effectiveness of the governments’ policies and laws.
Sagarmatha National Park in the Khumbu and Buffer Zone in the Pharak regions have many ICCA forests, groves, lakes, mountains and springs with sacred religious, cultural and resource use values. ICCAs significantly contribute for conservation of nature and natural resources (Stevens, 2010b). The entire SNP and BZ are considered the Khumbu beyul, which is also the regional ICCA and deserves non-violent, peaceful, sacred and spiritual stewardship (Stevens, 2010b). However, the government has yet to recognize these ICCAs. Government’s recognition of these resources, their interrelationships with Sherpa culture, religion and livelihood and value for biodiversity conservation will enhance dignity of Sherpa people. Recognition of ICCAs of the SNP and BZ may qualify Nepal meeting IUCN standard of protected area management and governance, ILO 169 article 8 and other articles as well.

*Article 13 states that “the government shall respect the special importance for the cultures and spiritual values of the indigenous peoples which concern their relationship with their lands or territories.”* Indigenous peoples often have historical and ancestral relationships and interconnections with natural sacred sites. Sacred natural sites include springs of pure water, glaciated mountains, unusual geological formations, forest groves, trees, rivers, lakes and caves (Sherpa & Bajracharya, 2009). In Nepal these sacred sites, which are owned, conserved, managed and governed by the indigenous peoples have often been declared protected areas by the government without free, prior and informed consent of the indigenous peoples and local communities (Stevens, 2010b). Nepal government established SNP without considering the cultural and religious connection of the Sherpa communities with the local natural resources (mountains, rivers, lakes, springs, forests, trees and wildlife) of the Khumbu and Pharak regions (Stevens, 2010b).
The area of Sagarmatha National Park Buffer Zone and according to current views of Pharak Sherpas, also Pharak is the Khumbu beyul, which itself used to be a sacred sanctuary, governed through customary institutions and laws (Stevens, 1993, Wangmo, 2005). Sherpa people have nurtured the local lands, vegetations, and wildlife, water and mountains resources through cultural and religious stewardship as the first settler of the region. However, the then Nepal government’s decision to establish SNP in 1976 without the free, prior and informed consent of the Sherpa people have violated the rights of indigenous peoples and caused cultural, social, spiritual, economical and environment damages. State and its protected areas including SNP and BZ should take initiative to safeguard the indigenous peoples’ cultural, religious and social beliefs with the full and effective participation of the indigenous peoples (Anaya, 2009).

*Article 14 states that “the rights of ownership and possession of the peoples concerned over the lands which they traditionally occupy shall be recognized.”* In accordance with ILO 169, the government should take action to restitute and recognize ownership of those lands traditionally occupied and owned by the indigenous peoples and make appropriate compensation to the indigenous peoples who are displaced from their individual and collective lands without free, prior and informed consent of the custodian indigenous peoples. The state party, NGOs and indigenous peoples’ organizations are responsible for the reconciliation process. The rights of indigenous peoples should not be violated and their cultural identity should not be threatened in the name of biodiversity conservation. Although, SNPBZ has not physically displaced Sherpa people of the Khumbu and Pharak regions, it has caused difficulties in social, economic and cultural development processes
as explained elsewhere in this dissertation. Therefore, the government and SNP have a huge responsibility to recognize the rights as stipulated in article 13 of ILO 169.

*Article 15 states that* “the rights of the indigenous peoples concerned to the natural resources [must be] ....safeguarded. These rights include..... the use, management and conservation of these resources.” The conservation initiatives taken by the states to conserve biological diversity in old paradigm conservation approach over the last century have seriously affected the livelihoods of the indigenous peoples and local communities. The ancestral lands and territories of indigenous peoples in Nepal were often taken by the government to declare protected areas without their free, prior and informed consent (Anaya, 2009). In addition, the indigenous peoples who are the custodians of the natural resources are often prohibited from using, conserving and managing the resources (Anaya, 2009). This has created severe conflicts between protected areas and indigenous peoples, thereby resulting in poor management of natural resources, biological diversity and pushing indigenous peoples toward impoverishment, poverty and social injustice (Sharma, 1991). Nepal’s government managed protected areas do not have legal provisions that welcome the indigenous and local community’s participation in the management and decision-making process through their own institutions, such as ICCAs.

Although buffer zone management programs are claimed to be one of the best models of community participation in biodiversity conservation and sustainable development, the overall management structure does not ensure equal and equitable rights to indigenous peoples and local communities (Jana, 2007, 2009; Paudel, *et al.* 2007, 2011). The major decision-making power lies with the protected area authority,
which does not address and redress the rights of the indigenous peoples, thereby violating their access and management rights to natural resources (Jana 2007, 2009; Stevens, 2010b; Paudel, et al. 2011). The NPWC Act of 1973 considers national parks and protected areas as national level organization. It therefore ignores the role of indigenous peoples, local communities and authorities. In case of the Pharak buffer zone of the SNP, the local communities have more decision-making authority in forest management and governance than the Khumbu buffer zone communities. The Khumbu buffer zone user group members can recommend up to three trees to fell for building a new house. In comparison, Pharak’s buffer zone CFUG has the authority to recommend more trees (not specified, can be permitted on the basis of needs) to fell for building a new house. However, suspicion is growing over the attitude of the SNP staff as their interest is seen on forest resources of the Pharak region.

*Article 16 states that, “the peoples concerned shall not be removed from the lands which they occupy without their free and informed consent.”* If new protected areas are established or plans are developed to do so, the indigenous peoples and local communities should not be displaced from their ancestral land or territories without their free, prior and informed consent. Dislocation of indigenous peoples and local communities from their land or territories is a violation of human rights and the rights of indigenous peoples. If dislocation is required, appropriate compensation in accordance to the national law and international conventions should be ensured. This article however does not apply in case of SNPBZ.
Article 20 concerns “the rights to employment including skilled employment, as well as measures for promotion and advancement.” The staff recruitment policies and practices of Nepal’s protected area including SNP management system do not respect the rights of indigenous peoples and local communities. There are no pro-indigenous peoples, pro-community, pro-women and pro-poor policies, which give equal and equitable opportunity to local rights-holders to care for their own resources. The natural resources and biological diversity, which indigenous peoples have preserved for centuries and millennia, have become the basis for employment opportunities for non-local and non-indigenous peoples, who do not have sentimental and spiritual values toward the land and resources. Such a non-participatory and exclusionary policy of the government has discouraged the local community and indigenous Sherpa people from participating in protected area management and governance. This kind of exclusionary policy has produced numerous conflicts and problems and forced indigenous peoples to out-migrate from their territories in search of jobs, while suitable jobs in their homelands and territories are taken by non-indigenous and non-local people. Such practice has affected the loss of local language, cultural and social values, and community’s cohesiveness thereby affecting biodiversity conservation.

In the case of SNP, although SNP did not displace indigenous Sherpa people from the Khumbu region, it has displaced them socially, economically and politically (Stevens, 2010b). SNP has more than 250 soldiers and 34 park staff to manage the park, but only one of them is a Sherpa working at junior forest guard position. Since, the park’s staff recruitment policies are not inclusive and favorable to local and indigenous peoples, SNP does not have local people in management and administration. This policy and practice
has discouraged Sherpa people from taking part in local employment, economic
devices, social development and decision-making process of the park. Nepal
government’s current employment and recruitment policy needs to be changed, so that it
protects the rights and interests of indigenous peoples and local communities. Ownership
of protected areas should be given to indigenous peoples and local communities for their
long-term sustainable management.

Article 23, (1) states that “...and subsistence economy and traditional activities ..., such
as hunting, fishing, trapping and gathering, shall be recognized as important factors in
the maintenance of their cultures and in their economic self-reliance and development.
Governments ...participation of these people and whenever appropriate, ensure that
these activities are strengthened and promoted.” Article 23 recognizes rights of hunting,
fishing, trapping and gathering as important factors in the maintenance of indigenous
peoples’ cultures and in their economic self-reliance and development. Some of the
indigenous peoples of Nepal have a traditional culture of hunting, fishing, trapping and
gathering. For example, the Tharus of Chitwan have long emphasized fishing as part of
their livelihood and the Rais of Makalu-Barun National Park have a trapping and hunting
culture, but these activities have been made illegal in those protected areas and the park
authority has not provided alternatives to such traditional practices. These kinds of
restrictive policies of the park have also violated the rights of indigenous peoples in
Nepal’s protected area management system. Unlike other indigenous peoples of Nepal,
Sherpa people do not hunt. Destruction of nature, vegetation and polluting water sources
and environment are considered sinful in Buddhism. They rather nurture plants and
wildlife, maintain environment clean according to Buddhist beliefs and values. Their
gathering rights have not been addressed in SNP and BZ.

13.8 Recommendations

Recommendations drawn from my field research and literature review of national and international policy documents are provided in the following section. They are presented in the descending order from international law and policy to Sagarmatha National Park and Buffer Zone and Pharak Forestry case study.

13.8.1 International Law and Policy

Considering four decades of Nepal’s experience in conservation and management of natural resources and biological diversity through the establishment and management of protected areas, Nepal government needs to reform and restructure its protected area management policies and legislation. There have been considerable changes in concepts and management of protected areas at national and international levels over the recent decades. However, Nepal is still following the old paradigm conservation models, thereby ignoring key globally-endorsed policies and covenants derived from human rights and indigenous peoples’ rights conventions. The indigenous rights and protected area policy affirmed by ILO convention 169, the United Nations Declaration on the Rights of Indigenous Peoples, the CBD of 1992 and the CBD PoWPAs of 2004, and IUCN’s World Parks Congress, Durban 2003 and subsequent World Conservation Congresses, have not been integrated by Nepal into the protected area management laws, rules and regulations, programs and plans. As a result the country is not achieving
conservation goals, indigenous peoples are losing their ownership over their lands, territories and their cultural identity and do not participate fully in protected area management, the ecological condition of protected areas is degrading, and conflicts between protected area managers and indigenous people are escalating. Ultimately, Nepal is losing its credibility in the UN and international conservation and development circles. Therefore, in order to make necessary improvements to upgrade conservation programs, implement ILO 169, and meet international standards of conservation governance and management, Nepal needs to consider the following actions without delay.

- Nepal needs to review its protected area management acts and policies and revise them in line with indigenous peoples’ and local communities’ rights and international conventions. This initiation should take place with the active participation of indigenous peoples, government, NGOs, donors and other concerned stakeholders in a free, fair, transparent and democratic environment, with priority given to the evaluation of existing protected area legislation and policies by indigenous peoples and with indigenous peoples’ full and effective participation in drafting new legislation and policies;

- Assess the progress and achievements of the old paradigm model and incorporate the new paradigm approaches in protected area legislation, management and governance policies;

- Incorporate best practice conservation policies and practices derived from global experience as recommended by Durban Accord, Durban Action Plan and the CBD Program of Work on Protected Area and other international standards;
• Adopt the recommendation of IUCN’s Fourth World Conservation Congress (Barcelona 2008) and other international conservation meetings relating to the establishment and management of protected areas with recognition of the rights of indigenous peoples as identified in ILO 169, the UN Declaration on the Rights of Indigenous Peoples, the CBD, Agenda 21, and other pertinent international agreements.

• Ensure that the rights of indigenous peoples and local communities including the Sherpa people of SNP and BZ are respected while achieving conservation goals and objectives;

• Integrate the concept of safeguarding sacred natural sites including beyul and sacred mountain into protected area governance and management and respect the local customary laws that govern those sacred sites and resources;

• Reconcile Nepal’s protected area system with IUCN and CBD endorsement of diverse governance and management of PAs as expressed in the IUCN governance type and PA management category matrix. The full diversity of protected area governance types and management categories should be eligible for legal recognition and support; and

• Assess and incorporate Indigenous Peoples’ and Community Conserved Areas (ICCAs), Indigenous Conservation Territories and private managed areas as types of protected area governance, and give due recognition to them for all management categories of protected areas.
13.8.2 Sagarmatha National Park and Buffer Zone

In order to meet the international standard of conservation, the Sagarmatha National Park and Buffer Zone need to be managed on co-managed or shared governance model. For the government authority it may sound like an unacceptable proposal, but as discussed previously in chapters 9 and 10, SNP is unofficially operating on co-management decision. Therefore, it is just a matter of formalizing the already existing practice in legal and policy documents. This will involve formation of park advisory committee as stipulated in the management plan 2007 and draft regulation 2008.

Secondly, buffer zone is already on co-managed or shared governance, but it needs stronger participation of local communities. The buffer zone regulation should devolve more authority to BZUG, BZUC and BZMC, which involves sharing chief warden’s authority with the BZMC chairperson at the park level. In specific term, involvement of the BZMC chairperson in operation of buffer zone account, devolving more decision-making authority to BZUG and BZUC, change the clause like “chief warden can dissolve the BZUG and BZUC at any time if necessary” in the buffer zone regulation 1996 need modification. The BZMC should have decision-making rights for both the park and buffer zone and the park advisory board should have the authority to advise the BZMC for matters relating to both park and buffer zone. Thirdly, the park staff recruitment policy should be changed to hire at least 50 percent of the staff locally in the park management and security force. This model has been well demonstrated by the Khumbu Bijuli Company. In fact, KBC has hundred percent local staff. Fourthly, the co-management agreement should give due recognition to ICCAs of the park and buffer zone. Sherpa people’s cultural and religious relationships to the natural resources of the
park and buffer zone should be clearly spelled out and Sherpa people should be given full rights to practice and nurture their area. Fifth, improve the trust and relationship between the park authority and local communities through dialogues, communication and coordination on a regular basis. Sixth, the park should establish a research section, which involves both the park staff and local youths in wildlife, forest, Sherpa culture, tourism, livestock, and agriculture and park management and governance issues. The research findings should be applied in management of the park and buffer zone. The information should also be accessible to local educational institutions, NGOs, CBOs (Community Based Organization) and other stakeholders.

Finally, giving recognition to the Sherpa people’s conservation practices, customary laws and institutions by the state party may have ample advantages. For instance, it will boost the morale of the Sherpa people and local communities, and will encourage support for biodiversity conservation. In other words, adopting inclusive and equitable policy will achieve more conservation goals than excluding the local conservation stewards and custodians. Excluding local custodians and their indigenous knowledge in biodiversity conservation and governance will not only hamper the conservation of biological diversity, but also cultural values and their associated practices. Adopting socially inclusive conservation policy and resource governance can only bring a win-win situation and achieve conservation goals. In such a case, only community-based protected area management and collaborative governance may lead towards this goal (Nietschmann, 1997, Stevens 1997, Western and Wright 1994). However, co-managed governance also can be situation and context based and it can create problems if special, case-based issues are not taken into account.

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13.8.3 Pharak Forestry

Firstly, botanical and forest related scientific research needs to be undertaken in order to find out the propagation capacity of the centuries old *hu-trees* of the Pharak and Khumbu regions. Cultural and historical research also needs to be done. Those trees may also be related to the history of local religious and cultural institutions. Research on such aspects will give broader understanding of the interrelationship between the biological diversity and cultural diversity of the region. Secondly, there are three customary ICCA forests at Nangbuk, Kyongma and Lukla and many more are emerging within community forest user groups in the forms of red panda conservation area, kyakshing and monastery forests. However, they are not clearly mentioned and recognized in the constitutions and operation plans of the Pharak buffer zone CFUGs. This aspect needs to be carefully included in the constitution and brought to public attention. Such initiatives by the local communities should be rewarded and documented by the park and buffer zone institutions. Thirdly, SNP administration has withdrawn all of the logging seals of the Pharak CFUGs in 2011 and decided to use only one seal by the park authority. This might give the direct impression that the community rights are hijacked by the park authority. In fact, this practice may cause more conflict than benefit. The Pharak communities have already experienced this kind of management under district forest office governance. Finally, the Pharak and Khumbu locals are managing the immigration pressure through imposition of forest and grazing commons access regulations and fees. This practice needs to be legally backed up through inclusion in CFUG constitution. The
CFUG constitution that is currently under review process needs to take this fact into account.

13.8.4 Conclusion

This research in conservation governance and management of the Sagarmatha National Park, Buffer Zone and Buffer Zone Community Forest User Groups in Pharak, Nepal had three initial hypotheses. In order to conclude the research findings in relation to the hypotheses, I have provided brief concluding remarks in relation to each hypothesis in the following paragraphs. I discuss my findings in relations to each of these hypotheses.

Hypothesis 1:

The conservation governance and management of SNP, BZ and BZCFUG respects Sherpa’s cultural and religious beliefs and customary practices, and meets the scientific conservation standards in the world’s highest ecosystem and homeland of Sherpa people.

This dissertation study of the Sagarmatha National Park and Buffer Zone has revealed that although the national park continues to be managed and governed on the old paradigm conservation model, the implementation of the buffer zone management program as a weak form of co-managed governance has produced some positive results. This change represents significant progress in shifting towards new paradigm conservation. It restores limited resource use, management and governance rights to the region’s Sherpa custodians, restoring rights dispossessed by the territorializing state through national park and district forest office rule since the 1970s. These are gradually
being returned to the Sherpa people and other minority communities, although they are mostly unofficial understandings, rather than legal recognition of rights. Consequently, today the Sherpa people are taking full responsibility for protecting natural resources such as forest, wildlife, water, and land. However, in recent years the situation of community rights over the national park and buffer zone resources have advanced only gradually, and because not all of these rights and responsibilities are legally recognized, there are weaknesses in the three institutions of SNP, the SNPBZ, and the BZCFUG. Hypothesis 2:

Sagarmatha National Park, Buffer Zone and Community Forests are state managed and governed protected areas, which address the aspiration of “new paradigm” conservation, respecting the rights of indigenous peoples;

Sagarmatha National Park is managed according to the old paradigm model of conservation. The management and governance of the park is solely undertaken by the state- appointed staff and security personnel. The indigenous Sherpa people and other local communities are not represented in the management and governance institutions. This contrasts with the Buffer Zone Management Program (BZMP), which has implemented a weak form of ‘co-managed’ governance. This has improved benefit distribution and helped address some local needs. My case study suggests that the sustainability of the BZMP, however, is uncertain due to political interference from the national level and lack of transparency and equitable strategies at the local level. Finally, although the buffer zone community forests are being managed and governed by local communities, state national park authorities are attempting to gain more control over forest use, management and governance from the BZCFUGs in Pharak. This indicates
that the BZ and BZCFUGs are forms of community-based natural resource management programs like those implemented in other countries beginning in the 1980s, which have been criticized because local communities do not have full rights to make decisions about management (Stevens forthcoming c). As a result, SNP, BZ and BZCFUG do not address the aspirations of “new paradigm” conservation and fully respect the rights of indigenous peoples.

Hypothesis 3:

Conservation governance and management practices applied to forests, wildlife, grazing commons and natural resources in SNP, BZ and BZCFUG are inclusive, equitable, and enhance the livelihoods of the Sherpa people and other ethnic minority groups.

Conservation governance and management practices applied to forests, wildlife, grazing commons and natural resources in SNP, BZ and BZCFUG are not inclusive or equitable and do not sufficiently enhance the livelihoods of the Sherpa people and other ethnic minority groups. This is particularly true for SNP. The Sherpa people of Khumbu who reside inside the national park boundaries, for example, do not have full rights to make decisions over forest use. They have only a collaborative or consultation role by issuing recommendation letters for the felling of up to three trees for construction of a house and making recommendations about firewood collection regulation. This is weak shared governance of forests, with authority and power continuing to be held by state officials. The local communities also have collaborative roles in managing some natural resource uses, including water, stone, sand, and soil. By contrast, the local people do not have any role in wildlife management. The park authority reserves all the decision-
making authority related to wildlife of the park (and the buffer zone). The only aspect of natural resource use which the Khumbu villages fully manage is the use of grazing commons. The national park has not been very active in enhancing the livelihoods of Khumbu Sherpas and minority communities in Khumbu.

Buffer zone and BZCFUG institutions are relatively more inclusive than the park as they are operated with or by the local communities. Although BZ and BZCUG institutions have many positive aspects to appreciate, they also lack transparency, equity and accountability to some extent. The institutions nevertheless are leading the conservation programs in a positive direction. The BZ has contributed more to development than SNP itself, although some villages have benefited more than others and much more needs to be done to improve equity and livelihoods.

In SNP, BZ and BZCFUGs, the Nepal government needs to give more rights and responsibilities to the local communities in order to achieve long-term success in conservation and development. Failure to address the indigenous peoples’ rights envisioned by the Convention on Biological Diversity, ILO 169 and United Nations Declaration on the Rights of Indigenous Peoples will have negative repercussions for conservation of the bio-cultural diversity of this globally significant ecosystem.
APPENDIX A

INTERVIEW SCHEDULES

Appendix 1a.
Interview schedule for individual interviewees
Conservation governance and management

1. Governance by indigenous peoples and local communities

Majors questions to be asked to interviewees of Pharak (Nangbuk, Dungde, Kyongma, Lukla, Sewangma, Rimijung and Ghyuphete, Monju and Jorsalle villages) and Khumbu (Namche, Thame, Khumjung and Pangboche villages) buffer zone user groups, user committees, monastery management committees, lodge management committees, schools, local NGOs, agropastoralists, farmers, entrepreneurs and individuals.

- Who owns the local forests, wildlife, grazing land, medicinal plants, rivers, lakes and mountains?
- Who conserve, manage, use and care for these resources?
- Who makes the decisions over these resources?
- Who do you think are responsible for the management, conservation and governance of these resources?
- Which are the institutions that take governance responsibility of these resources in the park and buffer zone?
- How old are the institutions? Who are members of these institutions? Are they insider (local), outsider (non-local), which ethnic groups, male and female?
- Are there any traditional, religious or cultural beliefs, values and customary laws to govern those resources?
- What are the success and failure stories of these institutions?
- Which of the institutions or individuals do you think worked best for conservation of biodiversity and support of local people?
- What are the major conservation threats of the Khumbu and Pharak?
- What are the opportunities for conservation of natural resources in Khumbu and Pharak?

2. Governance by government:

- What are the strengths and weaknesses of Sagarmatha National Park (SNP) management?
• What are the success and failure stories of the SNP?

• How can the SNP governance and management be improved? If any changes in the SNP management and governance are required, what would they be?

• How the government of Nepal is implementing the international legal instruments such as Convention on Biological Diversity, ILO Convention 169 and United Nations Declaration on Rights of Indigenous Peoples in management and governance of protected areas and conservation of biological diversity in Nepal?

3. Collaborative governance (buffer zone institutions)

• Who do you think are the decision-makers in the Sagarmatha Buffer Zone (SBZ)? Who holds the most decision-making authority? What are the effects of those decisions?

• What are the strengths and weaknesses of SBZ management?

• What are the success and failure stories of the SBZ?

• How can the SBZ governance and management be improved? If any changes in the SBZ management and governance are required, what would they be?

• Do you think Sagarmatha National Park and Sagarmatha Buffer Zone are same or different organizations? Give your reasons for both cases.

• Do you think SNP is contributing to the conservation of Sherpa’s religious and cultural practice? Give your reasons for both cases?

4. Human rights and indigenous peoples’ rights issues

• Are you aware of any of the national and international human rights instruments relating to conservation and indigenous peoples’ issues? If yes, what are they? And how did you know about them?

• Do you think human rights and indigenous peoples’ rights are issues in the SNP and SBZ? Give your reasons please.

• If there are any human rights and indigenous peoples’ rights being violated, what are they?

• How do you think these rights should be addressed?

5. Livelihoods

5.1 Forestry in SNP (Khumbu)

• Do you think forest conditions in the SNP and SBZ have improved after the establishment of the park and buffer zone? Who you think made the major contributions for the increase or decrease?
• Where did the timber and firewood supply come from to the park since above conservation measures were initiated?
• What and how did these conservation measures effect the forests of the Khumbu and Pharak?
• Do you think Khumbu should also have community forest user group system?

5.1.1 Forestry in Pharak

• What are the changes you have seen since Community Forest User Groups (CFUG) have been established in the Pharak region?
• What changes do you notice since District Forest Office has handed over the community forests to local user groups?
• What technical supports did you use to get from DFO?
• What technical support do you get from the park management these days?
• How do you perceive the future of Pharak community forests?
• What are the success and failure stories of CFUGs in Pharak?
• Do you think Khumbu should also have community forest user group system?

5.2 Wildlife in the Khumbu and Pharak

• What kinds of wildlife are found in your area in the park and buffer zone since the state governed conservation initiatives are taken?
• Has there been more wildlife before the park was declared in 1976?
• Which of the wildlife species have increased or decreased?
• Who is making the major contribution for the conservation of the wildlife in the park and buffer zone?
• What types of positive and negative impacts do you get from wildlife?
• Are there any compensation schemes for the damages caused by wildlife in the park and buffer zone?
• How inclusive the park and buffer zone policies are for wildlife conservation?
5.3 Agropastoralism in Khumbu and Pharak

- Do you think that Sherpas are continuing the agropastoral practices?
- Has the number of households following agropastoral practices increased or decreased since the park is established?
- What changes do you notice in agropastoral practices of Khumbu and Pharak?
- Do you foresee any ideas to preserve the traditional agropastoral system?

5.4 Tourism in Khumbu and Pharak

- What are the problems you foresee with tourism in Khumbu and Pharak?
- Who should be responsible for addressing the problems?
- How is tourism affecting the nature conservation of Khumbu and Pharak?
- How is tourism affecting the Sherpa culture of Khumbu and Pharak?
- How is tourism affecting the livelihoods of Khumbu and Pharak people?

Appendix Ib

Interview schedule for Kathmandu based or international NGOs and government officials who are related to Khumbu and Pharak

6. Governance by government:

Questions to be asked to government officials, international non-governmental organizations (INGOs), which may include, WWF, Himalayan Trust, Eco-Himal, community leaders and buffer zone institutions in Kathmandu, Pharak and Khumbu are as follows. Government officials may include Department of National Parks and Wildlife Conservation officials, Ministry of Forestry and Soil Conservation, Ministry of Tourism and Civil Aviation.

- What are the strengths and weaknesses of Sagarmatha National Park (SNP) and Buffer Zone (BZ) management?
- What are the success and failure stories of the SNP and BZ?
- How can the SNP governance and management be improved? If any changes in the SNP management and governance are required, what would they be?
• Do you think the role of local people are important for the biodiversity conservation and management of the Sagarmatha ecosystem? Are the local people actively involved in the conservation?

• Are there any traditional or customary conservation and management institutions at the local level? Are those practices included in the park and buffer zone policies and plans?

• How the government of Nepal is implementing the international legal instruments such as Convention on Biological Diversity, ILO Convention 169 and United Nations Declaration on Rights of Indigenous Peoples in management and governance of protected areas and conservation of biological diversity in Nepal?

Appendix 1c.

Focus Group Interview Schedule for Buffer Zone Community Forest Users Groups (BZCFUG) in Pharak.

1) Did the national park warden/district forest officer or any NGO staff assist you in preparing your constitution and working plan?
2) Do you think that the BZCFUG manages/managed the community forests itself or did it co-manage them with the national park/district forest office?
3) What kind of support (technical, legal, financial) do you get from the park authority?
4) How is the park’s support different than that of the district forest office?
5) Who makes rules and regulations about your BZCFUG? Are they really effective?
6) How many types of forests does your BZCFUG have? Do you also have sacred forests, religious forests, etc? How are these forests reflected in the BZCFUG plans and policies?
7) Is your BZCFUG autonomous or is it dependent on the park, district forest office, Village Development Committee, NGOs and others for its governance and management?
8) Which of the ethnic groups are represented in your BZCFUG? Who is not represented? What is the female representation in your group?
9) How old is your BZCFUG and what are the changes you have experienced since it has been established?
10) What are your success and failure stories of the BZCFUG?
11) What are your threats and opportunities for the future?

Focus Group Interview Schedule for Buffer Zone User Groups (BZUG) in Pharak and Khumbu.

1) Who helped to prepare your buffer zone management plan?
2) Are your activities, plans and interests included in the plan?
3) Who makes the decision in Buffer Zone User Group, Committee and Council?
4) To what extent have your buffer zone user group (BZUG) and committee been successful?
5) How socially inclusive is your BZUG? Are all ethnic groups, ethnic minorities and male and female represented in your group?

6) In what way is your BZUG related to the park and other institutions?

7) What are the success and failure stories of your BZUG?

8) What are the challenges and opportunities of your BZUG?

9) What are your recommendations and suggestions for future improvement of the buffer zone management program?
APPENDIX B

MEMORANDUM OF UNDERSTANDING DRAWN TO PROTECT THE FOREST ABOVE LUKLA

Date: Shrawan 28, 2039 B.S. (August, 1982)

As the forest above Lukla airport at ward number 8 of Chaurikharka Village Panchayat of Solukhumbu district is under the pressure of degradation due to unauthorized felling, we the ward members and representatives of different sectoral organizations have discussed and decided to restrict the use of the forest as per the following terms and conditions. And the management of the forest will be done by presence of the following participants. It is also notified through this written memorandum of understanding that other than leaf litter, any other forest products like firewood and fodders cannot be collected from this indicated four sides' boundaries, that is east of the gorge above Lukla, west to the watermill river, north from the straight main trail and south from the bamboo wall.

Terms and conditions set for the protection:

1. Fine for felling a tree Rs. 500.
2. A load of live tree firewood Rs. 300.
3. Fine for a load of fodder Rs. 500.

Anyone violating this written rule or attempted to ignore and damage the forest by collecting firewood and fodder shall be punished by enforcing this rule. The money collected from this forest fines shall be collected into the fund of Village Panchayat. No one can log timber within this forest as well. This effort will improve the greenery of the Lukla airport. If anyone's servant collected firewood or fodder without knowing this rule, shall be kept under custody for 24 hours.

We all the signatories of under signing participants agreed to abide by the rules of this memorandum of understanding.

Anyone who sees felling trees in this forest and reports to the chairperson or anyone of the committee members shall get reward of 25 percent of the fine value.
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<tr>
<th>S.N.</th>
<th>Name of participants</th>
<th>S.N.</th>
<th>Name of participants</th>
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<tr>
<td>1</td>
<td>Mr. Mingma Nuru Sherpa, Ward Chairperson</td>
<td>34</td>
<td>Mrs. Tashi Phuti Sherpa</td>
</tr>
<tr>
<td>2</td>
<td>Mr. Onchhu Sherpa, Ward Member</td>
<td>35</td>
<td>Mrs. Lhaki Sherpa</td>
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<td>3</td>
<td>Mr. Pasang Sherpa, Ward Member</td>
<td>36</td>
<td>Mr. Dawa Gyalzen Sherpa (Tate)</td>
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<tr>
<td>4</td>
<td>Mr. Santa Kumar Tamang, Ward Member</td>
<td>37</td>
<td>Mr. Nimdorjee Sherpa</td>
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<tr>
<td>5</td>
<td>Mrs. Dil Kumari Tamangni</td>
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<td>Mr. Rapten Chuldim Sherpa</td>
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<td>Mr. Ang Tshiring Sherpa, H.J.</td>
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<td>Mr. Alhakpa Sherpa</td>
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<td>9</td>
<td>Mr. Danu Sherpa</td>
<td>42</td>
<td>Mr. Urita Sherpa</td>
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<td>10</td>
<td>Mr. Pemba Gelzen Sherpa</td>
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<td>Mr. Krishna Nepali</td>
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<td>11</td>
<td>M/S Sherpa Co-Operative Pvt. Ltd.</td>
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<td>Mr. Jeet Bahadur Nepali</td>
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<td>Mr. Phurba Chottar Sherpa</td>
<td>45</td>
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<td>13</td>
<td>Mr. Wongchu Sherpa</td>
<td>46</td>
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<td>Mr. Angima Sherpa</td>
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<td>22</td>
<td>Mrs. Pelu Sherpa</td>
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<td>Mr. Ang Dorjee Sherpa (Khumbule)</td>
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<td>Mr. Pasang Phuttar Sherpa</td>
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<td>Mrs. Tshiring Nima Sherpa</td>
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<td>Mrs. Ming Phuti Sherpa</td>
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The carbon copy of this document has been given to the office of Village Panachyat, Range office Lukla and Airport Security Guard Lukla as well.
APPENDIX C

THE ETHNICITY, NUMBER OF HOUSEHOLD AND THEIR PERCENTAGE IN THE HIMALAYA, KONGDE, PEMACHOLING AND DUDHKUNDA CFUGS

Table C.1: The ethnicity, number of household and their percentage in the Himalaya CFUG in 1998.

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<td>1.42</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Chetri</td>
<td>1</td>
<td>1.42</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>Nepali</td>
<td>1</td>
<td>1.42</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70</td>
<td>100</td>
<td>310</td>
</tr>
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</table>

Source: Himalaya CFUG constitution 1998

Table C.2: The ethnicity, number of household and their percentage in the Himalaya CFUG in 2004.

<table>
<thead>
<tr>
<th>SN</th>
<th>Ethnicity</th>
<th>Total HH</th>
<th>Percentage of HH</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Woman</td>
</tr>
<tr>
<td>1</td>
<td>Sherpa</td>
<td>56</td>
<td>65.11</td>
<td>134</td>
</tr>
<tr>
<td>2</td>
<td>Rai</td>
<td>13</td>
<td>15.11</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>Tamang</td>
<td>6</td>
<td>6.97</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Magar</td>
<td>3</td>
<td>3.84</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Chetri</td>
<td>7</td>
<td>8.13</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>Shrestha</td>
<td>1</td>
<td>1.16</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>86</td>
<td>100</td>
<td>190</td>
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</table>

Source: Himalaya CFUG constitution 2004
Table C.3: The ethnicity, number of households, their percentage, male and female population of the Kongde CFUG in 2004.

<table>
<thead>
<tr>
<th>SN</th>
<th>Ethnicity</th>
<th>Total household</th>
<th>Percentage of HH</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Woman</td>
</tr>
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<td>Sherpa</td>
<td>62</td>
<td>56.36</td>
<td>131</td>
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<td>Rai</td>
<td>16</td>
<td>14.55</td>
<td>32</td>
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<tr>
<td>3</td>
<td>Tamang</td>
<td>9</td>
<td>8.18</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>Magar</td>
<td>8</td>
<td>7.27</td>
<td>16</td>
</tr>
<tr>
<td>5</td>
<td>Chetri</td>
<td>3</td>
<td>2.72</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>Biswokarma</td>
<td>9</td>
<td>8.18</td>
<td>23</td>
</tr>
<tr>
<td>7</td>
<td>Pariyar</td>
<td>3</td>
<td>2.72</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>110</td>
<td>100</td>
<td>229</td>
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</table>


Table C.4: The ethnicity, number of households, their percentage, male and female population of the Pemacholing CFUG in 2004.

<table>
<thead>
<tr>
<th>Caste</th>
<th>Household</th>
<th>Percentage</th>
<th>Female</th>
<th>Male</th>
<th>Total population</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Sherpa</td>
<td>33</td>
<td>78.57</td>
<td>70</td>
<td>78</td>
<td>148</td>
<td>77.08</td>
</tr>
<tr>
<td>Biswokarma</td>
<td>7</td>
<td>16.66</td>
<td>22</td>
<td>15</td>
<td>37</td>
<td>19.27</td>
</tr>
<tr>
<td>Rai</td>
<td>1</td>
<td>2.38</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.08</td>
</tr>
<tr>
<td>Tamang</td>
<td>1</td>
<td>2.38</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1.56</td>
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<td></td>
<td>42</td>
<td>100</td>
<td>97</td>
<td>95</td>
<td>192</td>
<td>100</td>
</tr>
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</table>


Table C.5: Ethnicity and population of Dudhkunda CFUG.

<table>
<thead>
<tr>
<th>Caste</th>
<th>Household</th>
<th>Percentage</th>
<th>Female</th>
<th>Male</th>
<th>Total population</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sherpa</td>
<td>37</td>
<td>92.5</td>
<td>103</td>
<td>90</td>
<td>193</td>
<td>92.34</td>
</tr>
<tr>
<td>Rai</td>
<td>2</td>
<td>5</td>
<td>8</td>
<td>4</td>
<td>12</td>
<td>5.74</td>
</tr>
<tr>
<td>Chetri</td>
<td>1</td>
<td>2.5</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1.91</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100</td>
<td>114</td>
<td>95</td>
<td>209</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Dudhkunda CFUG Operational Plan 2068 (2011).
APPENDIX D

EXECUTIVE COMMITTEE MEMBERS OF SAGARMATHA NATIONAL PARK BUFFER ZONE’S MANAGEMENT COMMITTEE, USER COMMITTEES AND USER GROUPS

Sagarmatha National Park
Buffer Zone Management Committee
Namche-1, Mendalphi, Solukhumbu.
Executive Committee

<table>
<thead>
<tr>
<th>S. N.</th>
<th>Name</th>
<th>Designation</th>
<th>Represent From</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mr. Sonam Gyalzen Sherpa</td>
<td>Chairman</td>
<td>Namche Buffer Zone User Committee, Namche</td>
</tr>
<tr>
<td>2.</td>
<td>Mr. Lhakpa Thundu Sherpa</td>
<td>Member</td>
<td>Khumbiyulha Buffer Zone User Committee, Khumjung</td>
</tr>
<tr>
<td>3.</td>
<td>Mr. Ngima Dorjee Sherpa</td>
<td>Member</td>
<td>Chaurikharka Buffer Zone User Committee, Chaurikharka</td>
</tr>
<tr>
<td>4.</td>
<td>Representative</td>
<td>Member</td>
<td>District Development Committee, Salleri</td>
</tr>
<tr>
<td>5.</td>
<td>Mr. Tulsi Ram Sharma</td>
<td>Member, Secretary</td>
<td>Sagarmatha National Park, Namche</td>
</tr>
</tbody>
</table>
## Chaurikharka Buffer Zone User Committee
### Chaurikharka, Solukhumbu.
**Executive Committee**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name</th>
<th>Designation</th>
<th>Represent From</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mr. Ngima Dorjee Sherpa</td>
<td>Chairman</td>
<td>Phari BZUG, Chaurikharka-9, Sanogumela</td>
</tr>
<tr>
<td>2.</td>
<td>Mrs. Pasang Lhamu Sherpa</td>
<td>Vice-chairman</td>
<td>Mera Peak BZUG, Chaurikharka-8, Lukla</td>
</tr>
<tr>
<td>3.</td>
<td>Mr. Mingma Tshiri Sherpa</td>
<td>Secretary</td>
<td>Chhomolongma BZUG, Chaurikharka-6, Ghat</td>
</tr>
<tr>
<td>4.</td>
<td>Mr. Pasang Nuru Sherpa</td>
<td>Vice-Secretary</td>
<td>Khumbila BZUG, Chaurikharka-1, Monju</td>
</tr>
<tr>
<td>5.</td>
<td>Mr. Lhakpa Chhiri Sherpa</td>
<td>Treasurer</td>
<td>Gautam Buddha BZUG, Chaurikharka-5, Phakding</td>
</tr>
<tr>
<td>6.</td>
<td>Mrs. Phu Doma Sherpa</td>
<td>Member</td>
<td>Baudha BZUG, Chaurikharka-2, Chaurikharka</td>
</tr>
<tr>
<td>7.</td>
<td>Mr. Phu Rinji Sherpa</td>
<td>Member</td>
<td>Passang Lhamu BZUG, Chaurikharka-4, Sukney</td>
</tr>
<tr>
<td>8.</td>
<td>Mr. Sera Tenjing Sherpa</td>
<td>Member</td>
<td>Kusumkhangkaru BZUG, Chaurikharka-3, Chheplung</td>
</tr>
<tr>
<td>9.</td>
<td>Mr. Ang Sarki Sherpa</td>
<td>Member</td>
<td>Laligurans BZUG, Chaurikharka-7, Syangma</td>
</tr>
<tr>
<td>10.</td>
<td>Mrs. Sita Rai,</td>
<td>Member</td>
<td>Phari BZUG, Chaurikharka-9, Sanogumela</td>
</tr>
<tr>
<td>11.</td>
<td>Mr. Phu Dorjee Sherpa</td>
<td>Member</td>
<td>Hariyali BZUG, Chaurikharka-4, Musey</td>
</tr>
<tr>
<td>12.</td>
<td>Mr. Dawa Nuru Sherpa</td>
<td>Member</td>
<td>Bauddha BZUG, Chaurikharka-2, Chaurikharka</td>
</tr>
<tr>
<td>13.</td>
<td>Mr. Lhakpa Geljen Sherpa</td>
<td>Member</td>
<td>Mera Peak BZUG, Chaurikharka-8, Lukla</td>
</tr>
</tbody>
</table>

## Khumbila Buffer Zone User Group
### Chaurikharka-1, Monju, Solukhumbu
**Executive Committee**

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<tr>
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<th>Name</th>
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<th>Address</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mr. Ang Dorjee Sherpa</td>
<td>Chairman</td>
<td>Chaurikharka-1, Jorsalle</td>
</tr>
<tr>
<td>2.</td>
<td>Mr. Ngawang Gele Sherpa</td>
<td>Vice-chairman</td>
<td>Chaurikharka-1, Monju</td>
</tr>
<tr>
<td>3.</td>
<td>Mr. Passang Nuru Sherpa</td>
<td>Secretary</td>
<td>Chaurikharka-1, Benkar</td>
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Baudhha Buffer Zone User Group  
Chaurikharka-2, Chaurikharka, Solukhumbu

Executive Committee

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<td>1.</td>
<td>Mr. Dawa Nuru Sherpa</td>
<td>Chairman</td>
<td>Chaurikharka-2, Chaurikharka</td>
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<tr>
<td>2.</td>
<td>Mrs. Phu Doma Sherpa</td>
<td>Vice-chairman</td>
<td>Chaurikharka-2, Chaurikharka</td>
</tr>
<tr>
<td>3.</td>
<td>Mr. Phurba Geljen Sherpa</td>
<td>Secretary</td>
<td>Chaurikharka-2, Bosum</td>
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Kusumkhangkaru Buffer Zone User Group  
Chaurikharka-3, Chheplung, Solukhumbu

Executive Committee

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<td>Mr. Sera Tenji Sherpa</td>
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<td>Chaurikharka-3, Chheplung</td>
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<tr>
<td>2.</td>
<td>Mrs. Phura Chhamji Sherpa</td>
<td>Vice-chairman</td>
<td>Chaurikharka-3, Chheplung</td>
</tr>
<tr>
<td>3.</td>
<td>Mr. Nga Temba Sherpa</td>
<td>Secretary</td>
<td>Chaurikharka-3, Nachipang</td>
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</table>
### Hariyali Buffer Zone User Group
Chaurikharka-4, Musey, Solukhumbu

**Executive Committee**

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</thead>
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<td>Chaurikharka-4, Musey</td>
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<tr>
<td>2.</td>
<td>Mrs. Chhiringma Sherpa</td>
<td>Vice-chairman</td>
<td>Chaurikharka-4, Musey</td>
</tr>
<tr>
<td>3.</td>
<td>Mr. Lhakpa Sona Sherpa</td>
<td>Secretary</td>
<td>Chaurikharka-4, Musey</td>
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### Passang Lhamu Buffer Zone User Group
Chaurikharka-4, Surkey, Solukhumbu

**Executive Committee**

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<td>Chairman</td>
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<td>Mrs. Mingma Doma Sherpa</td>
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<td>Chaurikharka-4, Surkey</td>
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<td>Mr. Ang Kami Sherpa</td>
<td>Secretary</td>
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### Gautam Buddha Buffer Zone User Group
Chaurikharka-5, Phakding, Solukhumbu

**Executive Committee**

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<th>Name</th>
<th>Designation</th>
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<td>1.</td>
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<td>Chairman</td>
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<tr>
<td>2.</td>
<td>Mrs. Yongmi Sherpa</td>
<td>Vice-chairman</td>
<td>Chaurikharka-5, Phakding</td>
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<tr>
<td>3.</td>
<td>Mr. Lhakpa Chhiri Sherpa</td>
<td>Secretary</td>
<td>Chaurikharka-5, Ngamboteng</td>
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<tr>
<td>S. N.</td>
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</tr>
<tr>
<td>1.</td>
<td>Mr. Mingma Tsheri Sherpa</td>
<td>Chairman</td>
<td>Chaurikharka-6, Teka</td>
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<td>2.</td>
<td>Mrs. Ang Kandu Sherpa</td>
<td>Vice-chairman</td>
<td>Chaurikharka-6, Ghat</td>
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<td>3.</td>
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<td>Secretary</td>
<td>Chaurikharka-6, Teka</td>
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<table>
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<tr>
<td>1.</td>
<td>Mr. Ang Sarki Sherpa</td>
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<tr>
<td>2.</td>
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<td>Chaurikharka-7, Syangma</td>
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<td>3.</td>
<td>Mr. Phura Kitar Sherpa</td>
<td>Secretary</td>
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<table>
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<td>Mr. Phu Nuru Sherpa</td>
<td>Chairman</td>
<td>Chaurikharka-8, Lukla</td>
</tr>
<tr>
<td>2.</td>
<td>Mrs. Passang Lhamu Sherpa</td>
<td>Vice-chairman</td>
<td>Chaurikharka-8, Lukla</td>
</tr>
<tr>
<td>3.</td>
<td>Mr. Lhakpa Geljen Sherpa</td>
<td>Secretary</td>
<td>Chaurikharka-8, Lukla</td>
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<table>
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<th>Designation</th>
<th>Address</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mr. Ngima Dorjee Sherpa</td>
<td>Chairman</td>
<td>Chaurikharka-9, Chhermading</td>
</tr>
<tr>
<td>2.</td>
<td>Mrs. Sita Rai</td>
<td>Vice-chairman</td>
<td>Chaurikharka-9, Sanogumela</td>
</tr>
<tr>
<td>3.</td>
<td>Mr. Passang Nuru Sherpa</td>
<td>Secretary</td>
<td>Chaurikharka-9, Chhuserma</td>
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</tbody>
</table>

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### Namche Buffer Zone User Committee
Namche, Solukhumbu
Executive Committee

<table>
<thead>
<tr>
<th>S. N.</th>
<th>Name</th>
<th>Designation</th>
<th>Represent From</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mr. Sonam Gyaljen Sherpa</td>
<td>Chairman</td>
<td>Kongde BZUG, Namche-2, Namche</td>
</tr>
<tr>
<td>2.</td>
<td>Mrs. Ang Maya Sherpa</td>
<td>Vice-chairman</td>
<td>Thamo Sagarmatha BZUG, Namche-5, Thamo</td>
</tr>
<tr>
<td>3.</td>
<td>Mr. Chhiring Dorjee Sherpa</td>
<td>Secretary</td>
<td>Thame BZUG, Namche-7, Thame</td>
</tr>
<tr>
<td>4.</td>
<td>Mr. Lama Kaji Sherpa</td>
<td>Vice-Secretary</td>
<td>Chhomolongma BZUG, Namche-3, Namche</td>
</tr>
<tr>
<td>5.</td>
<td>Mr. Ang Pemba Sherpa</td>
<td>Treasurer</td>
<td>Chhomolongma BZUG, Namche-3, Namche</td>
</tr>
<tr>
<td>6.</td>
<td>Mr. Ang Tenjing Sherpa</td>
<td>Member</td>
<td>Khumbila BZUG, Namche-1, Namche</td>
</tr>
<tr>
<td>7.</td>
<td>Mrs. Ang Phura Sherpa</td>
<td>Member</td>
<td>Khumbila BZUG, Namche-1, Namche</td>
</tr>
<tr>
<td>8.</td>
<td>Mr. Chhewang Sherpa</td>
<td>Member</td>
<td>Thesyo Khumbila BZUG, Namche-4, Thesyo</td>
</tr>
<tr>
<td>9.</td>
<td>Mr. Pemba Tenjing Sherpa</td>
<td>Member</td>
<td>Nangpala BZUG, Namche-6, Samde</td>
</tr>
<tr>
<td>10.</td>
<td>Mrs. Lhakpa Chhamji Sherpa</td>
<td>Member</td>
<td>Himalaya BZUG, Namche-8, Thameteng</td>
</tr>
<tr>
<td>11.</td>
<td>Mr. Geljen Sherpa</td>
<td>Member</td>
<td>Chhoyu BZUG, Namche-9, Hillajung</td>
</tr>
<tr>
<td>12.</td>
<td>Mrs. Ang Maya Sherpa</td>
<td>Member</td>
<td>Chhomolongma BZUG, Namche-3, Namche</td>
</tr>
<tr>
<td>13.</td>
<td>Ngawang Karsang Sherpa</td>
<td>Member</td>
<td>Kongde BZUG, Namche-2, Namche</td>
</tr>
</tbody>
</table>

### Khumbila Buffer Zone User Group
Namche-1, Namche, Solukhumbu
Executive Committee

<table>
<thead>
<tr>
<th>S. N.</th>
<th>Name</th>
<th>Designation</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mr. Mingma Sherpa</td>
<td>Chairman</td>
<td>Namche-1, Namche</td>
</tr>
<tr>
<td>2.</td>
<td>Mrs. Ang Phura Sherpa</td>
<td>Vice-chairman</td>
<td>Namche-1, Namche</td>
</tr>
<tr>
<td>3.</td>
<td>Mr. Ang Tenjing Sherpa</td>
<td>Secretary</td>
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### Kongde Buffer Zone User Group
Namche-2, Namche, Solukhumbu
Executive Committee

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<td>3.</td>
<td>Mr. Chhimi Kalden Sherpa</td>
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Chhomolongma Buffer Zone User Group
Namche-3, Namche, Solukhumbu

Executive Committee

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<td>2.</td>
<td>Mrs. Ang Maya Sherpa</td>
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<td>3.</td>
<td>Mr. Lama Kaji Sherpa</td>
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Thesyo Khumbila Buffer Zone User Group
Namche-4, Thesyo, Solukhumbu

Executive Committee

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<td>2.</td>
<td>Mrs. Dawa Chhoki Sherpa</td>
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<td>Mr. Nawang Hisi Sherpa</td>
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Thamo Sagarmatha Buffer Zone User Group
Namche-5, Thamo, Solukhumbu

Executive Committee

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<td>Mrs. Dati Sherpa</td>
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<td>Mr. Da Tenjing Sherpa</td>
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Nangpala Buffer Zone User Group
Namche-6, Samde, Solukhumbu

Executive Committee

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Thame Buffer Zone User Group  
Namche-7, Thame, Solukhumbu

Executive Committee

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<td>Mr. Mingma Sherpa</td>
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Himalaya Buffer Zone User Group  
Namche-8, Thamateng, Solukhumbu

Executive Committee

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<td>1.</td>
<td>Mrs. Lhakpa Chhamji Sherpa</td>
<td>Chairman</td>
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<td>2.</td>
<td>Ms. Passang Lhamu Sherpa</td>
<td>Vice-chairman</td>
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<td>3.</td>
<td>Mr. Ang Ngima Rai</td>
<td>Secretary</td>
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Chhoyu Buffer Zone User Group  
Namche-9, Hilajung, Solukhumbu

Executive Committee

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<td>Mr. Dawa Chhiri Sherpa</td>
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<td>2.</td>
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<td>3.</td>
<td>Mr. Geljen Sherpa</td>
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Khumbiyulha Buffer Zone User Committee
Khunjung, Solukhumbu.
Executive Committee

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<tr>
<td>1.</td>
<td>Mr. Lhakpa Thundu Sherpa</td>
<td>Chairman</td>
<td>Khumbiyulha Jagaruk BZUG, Khumjung-3, Khumjung</td>
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<tr>
<td>2.</td>
<td>Mr. Mingma Sherpa</td>
<td>Vice-chairman</td>
<td>Sagarmatha BZUG, Khumjung-7, Dingboche</td>
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<td>3.</td>
<td>Mr. Chhiring Sherpa</td>
<td>Secretary</td>
<td>Cho o u BZUG, Khumjung-2, Khumjung</td>
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<tr>
<td>4.</td>
<td>Mr. Phura Geljen Sherpa</td>
<td>Treasurer</td>
<td>Tashidele BZUG, Khumjung-4, Khunde</td>
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<tr>
<td>5.</td>
<td>Mr. Ngawang Nuru Sherpa</td>
<td>Member</td>
<td>Danfe BZUG, Khumjung-1, Khumjung</td>
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<tr>
<td>6.</td>
<td>Mrs. Mingma Doma Sherpa</td>
<td>Member</td>
<td>Cho o u BZUG, Khumjung-2, Khumjung</td>
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<td>7.</td>
<td>Mr. Pemba Tshering Sherpa</td>
<td>Member</td>
<td>Khumbiyulha Jagaruk BZUG, Khumjung-3, Khumjung</td>
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<td>8.</td>
<td>Mr. Nima Tenjing Sherpa</td>
<td>Member</td>
<td>Tashidele BZUG, Khumjung-4, Khunde</td>
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<td>9.</td>
<td>Mrs. Paljun Sherpa</td>
<td>Member</td>
<td>Gongri BZUG, Khumjung-5, Khunde</td>
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<td>10.</td>
<td>Mr. Lhakpa Dorji Sherpa</td>
<td>Member</td>
<td>Tyangboche BZUG, Khumjung-6, Tengboche</td>
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<td>11.</td>
<td>Mr. Ang Namgya Sherpa</td>
<td>Member</td>
<td>Sagarmatha BZUG, Khumjung-7, Dingboche</td>
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<tr>
<td>12.</td>
<td>Mr. Ang Sona Sherpa</td>
<td>Member</td>
<td>Tauche BZUG, Khumjung-8, Pangboche</td>
</tr>
<tr>
<td>13.</td>
<td>Mrs. Passang Doma Sherpa</td>
<td>Member</td>
<td>Lali Gurans BZUG, Khumjung-9, Phortse</td>
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Danfe Buffer Zone User Group
Khunjung-1, Khumjung, Solukhumbu
Executive Committee

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<td>Mr. Kanchha Nuru Sherpa</td>
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Cho Oyu Buffer Zone User Group  
Khumjung-2, Khumjung, Solukhumbu  

Executive Committee

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<td>3.</td>
<td>Mr. Ang Temba Sherpa</td>
<td>Secretary</td>
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Khumbiyulha Jagaruk Buffer Zone User Group  
Khumjung-3, Khumjung, Solukhumbu  

Executive Committee

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<td>2.</td>
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<td>Mr. Pemba Tshering Sherpa</td>
<td>Secretary</td>
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Tashidele Buffer Zone User Group  
Khumjung-4, Khunde, Solukhumbu  

Executive Committee

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<td>2.</td>
<td>Mr. Ang Chhiring Sherpa</td>
<td>Vice-chairman</td>
<td>Khumjung-4, Khunde</td>
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<td>3.</td>
<td>Mr. Ngima Tenjing Sherpa</td>
<td>Secretary</td>
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Gongri Buffer Zone User Group  
Khumjung-5, Khunde, Solukhumbu  

Executive Committee

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<td>1.</td>
<td>Mr. Ngima Chhiri Sherpa</td>
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<td>Mrs. Paljum Sherpa</td>
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<td>Mr. Ang Jepyang Sherpa</td>
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### Tyangboche Buffer Zone User Group
Khumjung-6, Tyangboche, Solukhumbu

**Executive Committee**

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### Sagarmatha Buffer Zone User Group
Khumjung-7, Dingboche, Solukhumbu

**Executive Committee**

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<td>Mr. Mingma Sherpa</td>
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### Tauche Buffer Zone User Group
Khumjung-8, Pangboche, Solukhumbu

**Executive Committee**

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<td>2.</td>
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<td>Mr. Dawa Dorjee Sherpa</td>
<td>Secretary</td>
<td>Khumjung-8, Pangboche</td>
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### Lali Gurans Buffer Zone User Group
Khumjung-9, Phortse, Solukhumbu

**Executive Committee**

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<td>3.</td>
<td>Mr. Tenjing Geljen Sherpa</td>
<td>Secretary</td>
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</table>
NOTES

1 ""Management" addresses what is done about a given protected area or situation, ‘governance’ addresses who makes those decisions and how" (Borrini-Feyerabend 2008:1). Borrini-Feyerabend (2008:1) also observes that "Governance is about power, relationships, responsibility and accountability. It is about who has influence, who decides, and how decision-makers are held accountable."
2 Since 2002, Nepal government could not form the local government due to political conflict.
3 According to ILO 169 and UNDRIP 2007, indigenous peoples are right-holders, they have the right to make decisions for the lands, territories and resources they own, use or govern (Anaya, 2009).
5 The first Rana Prime Minister Junga Bahadur Rana issued an order barring the use of languages other than Khas Nepali in government service in 1854 (Gurung, 2009; Sherpa, 2012).
6 Nepal Government recognizes buffer zone as IUCN category VI protected area.
7 Annapurna, Gaurishankar and Manaslu Conservation Areas are managed by Nepal Nature Trust for Conservation (NTNC). NTNC is a quasi-NGO governed by a board of Trustees. Minister for Forests and Soil conservation is the chairperson of the Trust.
8 National Trust for Nature Conservation
9 World Heritage Site
10 In Nepal, a Village Development Committee represents a local level administrative body, which comprises nine Ward Committees (WCs). The WCs are the lowest level of local government institution. The local governance institution of VDC has been implemented through the promulgation of 1991’s Constitution. VDC and WC replaced previous village institutions of Village Panchayat and Ward Panchayat enforced by late king Mahendra through 1962 constitution.
11 IUCN has classified protected areas into six management categories on the basis of management objectives. National Parks belong to category II type of protected area. Category II protected areas are large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provides a foundation for environmentally and cultural compatible, spiritual, scientific, educational, recreational, and visitor opportunities (Stevens’ forthcoming).
12 Beyul is a sacred hidden valley, declared and consecrated by Guru Rinpoche (Padmsambhava) - an adept Buddhist saint in the eight century B.C.
13 Guru Rinpoche, “lotus born” precious master (Furer-Haimendorf, 1964) is the founder of Nyingmapa Buddhism and creator of beyuls in the Himalayan region (Sherpa, 2003; Wangmo, 2005).

14 De is the village rule formulated by the village assembly, particularly in Khumjung VDC for regulating transhumance and agriculture practices (Stevens, 1993, 1997).

15 Leaf litter is an important forest product to the Pharak and Khumbu Sherpa communities to make compost fertilizer. Leaf litter is bedded to cattle and decomposed after it is mixed with up their waste. The compost fertilizer is used for agriculture farming.

16 The exchange rate of 1 US dollar is considered equivalent to Nepalese Rupees 80 throughout this dissertation unless otherwise stated.

17 Stamp (timber seal) or tancha in Nepali is like an iron hammer which has a mark of District Forest Office. Once DFO issues a logging permit, a ranger will go to the forest with the logging party and seal or stamp the trees.

18 SPCC is a Khumbu and Pharak Sherpa operated NGO, established in 1991, for the management of the local environment. The head office is based in Nauje and particularly deals with solid waste problem associated with tourism.

19 In Pharak and Khumbu, leaf-litter from forest is collected and used as cattle bedding. Leaf litter and cattle manure decomposes after a few months. That will then be used as fertilizer for agriculture farming.

20 SCAFP agroforester introduced Pinus patula in Pharak in around 1997 onwards and stopped after 2000, which is a native to highland of Mexico, known as a Mexican weeping pine and grows at an altitude of 1800 meter to 2700 meter. Seeds were brought by the SCAFP Agroforester from the Seed Distribution Section of the Department of Forest and generated in the Pharak nurseries. The agroforester did not analyze the technical aspect of its adaptability to Pharak altitude and environment. Several thousand saplings were grown at Benkar, Phakding, Lomzo, Yulging and Nangbuk nurseries. This species grows faster with bigger branches than the native blue pine. However, its tree is very delicate, falls down along with roots easily and breaks branches when there is strong wind and snow storm. Its roots are often eaten by insects and barks are peeled by bear to lick resin. Bear finds it easier to peel down the bark than the native blue pine for resin. Pinus patula forest also grows a kind of white wild mushroom but it makes diarrhea. Timber itself is soft and its needles are hard to make compost fertilizer. Pharak CFUGs have yet to experience the natural seed dispersal and regeneration process of this species.

Secondly, SCAFP facilitated to plant more than 5,000 native blue pine (Pinus wallichiana) saplings at the open space of Kyongma oak forest, which were transported from SNP/Himalayan Trust’s Phurte nursery in 1997. Though, it is native species, the plantation site happened to be in the open space of oak forest. It would rather have been meaningful if the saplings were oak species. Plantation of blue pine species in the centuries old oak forest might not have been the best choice decision of the SCAFP. Nevertheless, more than 80 percent of the saplings survived and the growth rate is impressive. However, in terms of ecological impacts, what kind of positive and negative changes there may occur in the future is yet to be experienced. The case studies of Himalaya, Kongde and Lukla CFUGs are presented in detail in chapters 3 to 7.
21 Similar situation exists in Red panda CFUG at Lomzo as well. There are about 25 policemen stationed at Nachipang and fell firewood without paying CFUG royalty.
22 The Jerusalem artichoke is used for making alcohol and its residue is a good cattle feed.
23 Some of the CFUGs like Himalaya have regulated this and people cannot just simply mine rocks, sand and earth without paying tax and securing permit from the CFUG.
24 Tourism for Rural Poverty Alleviation Program (TRPAP) was a five-year (2001-2006) program of United Nations Development Program, Department for International Development (DFID) and Netherlands Development Agency (SNV)-Nepal supported, and implemented under the Ministry of Culture, Tourism and Civil Aviation (MOCTA) in six districts of Nepal. The goal of the program was to alleviate rural poverty through development of tourism. The program had a component to prepare the Sagarmatha National Park Management Plan. In order to accomplish the Management Plan formulation component, a separate unit was set up in the Department of National Parks in Kathmandu and Wildlife Conservation and Sagarmatha National Park, Namche Bazar, Nepal.
25 The attribution of a living soul to plants, animals, objects and natural phenomena.
26 Thumruk and Tawak are two villages of the Himalaya Community Forest User Group, which is located at ward number one of Chaurikharka Village Development Committee. These two villages are also located within the boundary of Sagarmatha National Park. The villages had been there for more than hundred and fifty years, park was established in 1976 and the Himalayan CFUG was formed in 1998. The local residents have farmland and houses both at Monzo and Thumruk. They have been enjoying the forest use rights both inside and outside of the park. The SNP administration wanted to curtail one of the facilities in 2011.
27 Thal in Sherpa language is a wooden pole of a young tree, which is normally 10 to 12 feet long, used as supporting skeleton for roofing of a house.
28 More than 60 blue pine trees have damaged by black bear at Chuserma area only in 2011. Common leopards occasionally prey on livestock as well.
29 19.66 Ropanies of land is equal to 1 hectare.
30 If someone bought timber in one CFUG and wanted to transport to another CFUG, the person has to obtain transportation permit from the timber procured CFUG as well as other CFUGs en-route. This is to inform all concerned CFUGs that the timber is imported legally or maintain transparency. This rule has been effective since community forest user group system has been initiated in the Pharak region.
31 Note: One interviewee said that the Armed Forced Police (AFP) not only destroyed local forest, but also raped women during Maoist insurgency.
32 Chang is a homemade fermented alcoholic drink produced out of grains.
33 Raksi is the distilled spirit made out of chang.
34 Unlike other villages, Lukla in particular reports that there was more wildlife like tahr, barking deer, bear, danphe, etc during DFO era in comparison to what it is today. This is because forest and habitats degradation at Lukla continued till Nepal government signed Peace Accord with Nepal Communist Party of Maoist in 2006. More than 250 heads of armed police force stationed at Lukla airport entirely depended on the local forest for energy.
33Sherpa people following Buddhism regard all living beings as *zyptak*, spirits of forest and nature.

34Dhading district lies in the mid-region of Nepal. Most of musk deer poachers of SNP/BZ in the past were the Tamang people of Dhading district. Twenty-one Tamang musk deer poachers of Dhading were arrested and sent to jail sentence in 1991 alone. Several incidences have taken place before and after that too. The SNP army shot dead two Tamang poachers when they tried to retaliate on red hand arrest.

35There are also two common leopards at Khumjung and Khunde villages, which have caused damages to livestock, tahr and musk deer.

36Chengma-la or danda is the ridge between Phakding and Banker villages on the opposite site of Rimijung. It is located at an altitude of 3,500 meters.

37The bear damaged trees are hard to notice for the first year but they can be easily noticed from the second year as trees start to die.

38Dudhkunda CFUG also designated 554.4 hectare of the forest above Yulgrying village as *kyakising* (protected forest) in 2004. The objective however may not be to protect red panda. It is rather for conservation of forest for landslide control, aesthetic purposes and watershed preservation.


40The definition adopted by the agenda 21 for ‘sustainable development’ is, “development that meets the needs of present without compromising the ability of future generations to meet their own needs”.

41Many countries do not consider buffer zone as official protected areas.

42The entrance fee of SNP has risen to Rs. 3,000 ($ 38) for visitors other than SAARC nationals and Rs. 1,500 ($ 18) to SAARC nationals effective from June 22, 2012. Terai national parks and wildlife reserves charge Rs. 500 ($ 6) and Rs. 200 ($ 2.5) for non-SAARC nationals and SAARC nationals per tourist per entry respectively.

43The interconnectedness between protected area management system, tourism and livelihood of local communities in Nepal indicate that they are inextricably interrelated for sustenance of biodiversity. This is because local communities without economic opportunities have to rely on biodiversity for their livelihood options, which may have negative consequences on conservation as well. Tourism by virtue of it its nature and unlike other business, has the special characteristics that buyers come to the product, that is to the tourist destinations, including protected areas, where local communities can get business and employment at their homes in association with promoting tourism in protected areas and buffer zones. The theory is that when the local communities have other livelihood options, they do not have to rely on scarce natural resources for their survival and hence this contributes to conservation even though tourism development itself can introduce new resource use does.

44Protected areas declared as of 2010, not shown except Gaurishankar Conservation Area.

45Annapurna, Gaurishankar and Manaslu Conservation Areas are managed by Nepal Nature Trust for Conservation (NTNC). NTNC is a quasi-NGO governed by a board of Trustees. Minister for Forests and Soil conservation is the chairperson of the Trust.

46Appreciative Participatory Planning and Action (APPA) is a planning tool, based on the philosophy of appreciative inquiry. The basic principle of the tool is that if you
explore for problems, you will find only problems and that disappoint the local communities, but in contrast, if you explore for positive action and appreciation, you will be encouraged and motivated to initiate further actions. Positive thinking has strength. This tool is used for community development and conservation projects in Nepal, particularly in rural areas and conflicting situations. To develop a five-year community development plan using APPA tool requires a four days’ workshop. Anyone from the community can take part in the workshop. The tool uses 4D model. (4D stands for Dream, Discovery, Design and Delivery).

The Logical Framework Approach (LFA) is a management tool mainly used in the design, monitoring and evaluation of international development projects. It is also widely known as Goal Oriented Project Planning (GOPP) or Objectives Oriented Project Planning (OOPP).

The five-year term of the buffer zone management plan 2004 ended in 2008, and was replaced by the SNP management plan 2007-2012, which also has one major section on buffer zone management. There is a controversy about this, as some BZ leaders feel the BZ should have developed its own plan for 2009 – 2014.

Cesvi (Italian, "cooperazione e sviluppo", cooperation and development) - one of the biggest humanitarian organizations in Italy.

Chiura is cooked and flattened rice and masu is meat.

As tourism in the Thame valley began only recently with the opening up of Renjo-la pass from end of the 1990s, it is still in developing phase. None of the tourist lodges in the Thame valley so far uses propane gas for cooking. The BZUGs of Thame valley in 2011 decided to remain unchanged with the existing rules of collecting firewood two times for 15 days each in a year. Although option for bringing down to 10 days from 15 days in six months was explored, it remained unchanged as that might affect the lives of poor people. This is because winter is extremely cold and is not easy to collect firewood as it snows.

Formerly wolves and snow leopards were killed hiring Nauje Hindu caste Biswokarma people however.

Now only one or two tahrs could be seen in Spring at the same place.

Poachers have good chance of getting into forests as locals do not go to forest for eleven months in a year due to the new firewood collection regulation. The local people occasionally go to forests to collect wild mushrooms in monsoon season for about one and half months only.

Thamichu is the Sharwa (Sherpa) name for Thame valley. It also stands for people of Thame valley.

The army post of Pheriche has been abandoned even before the Maoist conflict. The local people did not request for its re-establishment of the army posts after the peace accord. They were re-established on the request of BZMC chairperson for security reasons.

The park entrance fee for non-South Asian visitors is Rs. 1,000 ($13) per visitor and Rs. 200 ($2.5) for South Asian visitors until June 2012. The government of Nepal has raised the entrance park fee to Rs. 3,000 ($38) to non-South Asian national and Rs. 1,500 ($19) to South Asian nationals from June 22, 2012. Porters accompanying visitors will
be charged Rs. 25. The increased fee will have a huge impact on the park’s revenue in the future.
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