

Guidelines for Ecotourism and Community-based Management in Jigme Dorji National Park, Bhutan

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Abstract

Bhutan is a small land-locked country between India and China with a landscape ranging from subtropical plains in the south to high Himalayan peaks in the North. The country has generally isolated itself and continues to conserve its culture and environment through restricted tourism and a development policy that revolves around Gross National Happiness instead of Gross Domestic Product. At 4,349 Km², Jigme Dorji National Park (JDNP) covers about 11% of the total area of Bhutan and has some of the highest biodiversity in the country. Given that there are also over 6,000 inhabitants in the park and increasing human-wildlife conflicts, the Royal Government of Bhutan sees ecotourism as a way to incentivize the conservation of the environment while addressing issues of poverty and unemployment. While true ecotourism is hindered by Bhutan's tourism policy, improved collaboration among tour operators, park management, government, and community members living in JDNP will lead to more authentic ecotourism and increased benefits to stakeholders in the park. Policy recommendations and ecotourism guidelines provided are based on site visits, interviews, and the results of surveys measuring tourist and tour operator practices and preferences in Bhutan and Jigme Dorji National Park.

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Glossary and Abbreviations

Glossary:

Bonpo	Shaman or practitioner of the pre-Buddhist Bön tradition
Choku	Household celebration in Laya to honor dieties
Chorten	A holy site or monument
Dzong	Fortress. Half functions as government offices and other half functions as Buddhist monastery
Dzongkhag	District government
Geog	Block (lowest administrative unit) government
Guejay	Series of songs sung for festivals over several days
Gup	Elected head of geog
Lhakhang	Temple
Pow	Village shaman
Tsachu	Hot springs
Tsechu	Annual festival

Acronyms:

ABTO	Association for Bhutanese Tour Operators
CDF	Community Development Fund
GNH	Gross National Happiness
GVEP	Goenkhamé Village Ecotourism Project
IES	International Ecotourism society
JDNP	Jigme Dorji National Park
NCD	Nature Conservation Division
RGoB	Royal Government of Bhutan
SGP	Small Grants Program (United Nations)
TCB	Tourism Council of Bhutan
WWF	World Wildlife Fund

1. INTRODUCTION

1.1 Background and Objectives of the Study

During the summer of 2009, I was invited by the Nature Conservation Division (NCD) to travel to Bhutan as an intern. The overarching goal of my internship was to help NCD and park management to improve ecotourism in Jigme Dorji National Park (JDNP). There are three reasons why ecotourism is a priority for the park: 1) the park is rich with natural resources and assets attractive to tourists, so the park's management hopes to generate tourism revenues to put towards park programs and management ; 2) there are over 6,000 inhabitants of the park and there is very little employment or income for them; and 3) there is a growing resentment among park inhabitants due to livestock predation, human-wildlife conflicts, and park restrictions on harvesting of forest products. Given that JDNP is the most accessible park for tourists, due to its proximity to the capital and airport, ecotourism is seen as a plausible way to incentivize the conservation of the park's resources while giving back to the communities living there.

In 2001, the United Nations Development Program funded a community-managed ecotourism project in JDNP centered on hot springs located near the village of Gasa (within the District of Gasa) in the park. The project was seen as a general failure and the hot springs later got washed away during a flood in 2009. This flood, however, inspired a new beginning. The District of Gasa, JDNP park management, NCD, and other stakeholders are interested to rebuild the hot springs and revamp efforts for ecotourism in the park. The question posed to me during my internship was how to improve ecotourism and its implementation in the park, with a particular focus on the Gasa hot springs. I have, therefore, the following objectives for my study:

- 1) Assess the Potential and Prospects for Ecotourism in JDNP
 - a. *Identify JDNP assets to tourists*
 - b. *Identify needs and obstacles for ecotourism*
- 2) Provide Guidelines for Ecotourism in JDNP
 - a. *Provide general recommendations to maximize ecotourism prospects*
 - b. *Determine how to increase the participation and benefit of community members with ecotourism*
 - c. *Using lessons learned, create guidelines to implement and improve Gasa hot springs for ecotourism*
- 3) Provide Policy Recommendations for the Bhutan Tourism Council and Jigme Dorji National Park Management

1.2 Country Background

Bhutan is a small Himalayan country nestled between India and China. It covers 38,394 square kilometers and ranges in elevation from 200 meters in the south to 7,500 meters in the north (Garung and Seeland 2008). This difference in elevation has created a variety of climatic zones from subtropical to arctic that permits a range of species habitat (Klaus 2000). As such, Bhutan is located in one of the world's hotspots of biodiversity and is home to more than 60% of species endemic to the Eastern Himalayas (Klaus, 2000). Examples of endangered species that inhabit Bhutan include the Royal Bengal tiger (*Panthera tigris*), the Asian elephant (*Elephas maximus*), the snow leopard *Panthera uncia*), the clouded leopard (*Neofelis nebulosa*), and the one-horned rhinoceros (*Rhinoceros unicornis*)(Klaus 2000) .

About three-quarters of Bhutan's 691,141 inhabitants practice Mahayana Buddhism, and the official language is Dzongha (CIA n.d.). English is also widely used both for instruction in schools and in government documents. A monarchy was established in 1907 and each of the Kings has approached foreign relations and development very cautiously. After China occupied Tibet in 1950, King Jigme Dorji Wangchuck , the "founder of modern Bhutan," responded to this threat by implementing changes that would help the little known country be unified, capable of responding to invasions, and recognized by the outside world. The King abolished serfdom, developed a new code of law, established the Royal Bhutanese Army, and expanded its ties with foreign nations. In 1962, Bhutan built its first road to link the country with India, Bhutan's major trading partner. In 1971, Bhutan joined the United Nations and a year later King Jigme Singye Wangchuck coined the term 'Gross National Happiness' (GNH). This term, seen as an alternative to Gross Domestic Product (GDP), indicated the King's commitment to developing an economy based on Bhutan's Buddhist values. GNH has become a standard upon which to develop RGoB policies and is based on the four pillars of sustainable development, preservation and promotion of cultural values, conservation of the natural environment, and establishment of good governance.

In 1999, Bhutan lifted a ban and became the last country to have television and the internet. Since then, the citizens of Bhutan have become more familiar with the outside world and the country is in a faster rate of transition. In 2002, the King transformed the reluctant country into a constitutional two-party democracy that held its first national election in 2008. The election was followed by the establishment of a new constitution that emphasized democratic governance with the separation of legislative, executive and judicial powers.

Bhutan's economy is implemented with five year plans. The gross domestic product per capita (PPP) was \$6,200 in 2009, with a large disparity among rural and urban populations (CIA n.d.) Sixty percent of the country's economy is based on agriculture and forestry, with most of the agriculture consisting of subsistence farming and animal husbandry (CIA, n.d.) The country's policies are not conducive to foreign investment, so industrial growth is limited (CIA, n.d.)

Bhutan was ranked 129 of 177 countries on the Human Development Index with a score of .583 in 2003 (CIA, n.d.). This places it in line with medium developed countries. While 23.2% of the population was below the poverty line in 2003 (CIA n.d.), over 90% of the population has free access to primary health care and 84% of the population is enrolled in primary school (RGoB 2005). Nevertheless, only 50% of the population above age 15 is literate (RGoB 2005). In 2007, Adrian White of the University of Leicester ranked Bhutan 8th of 178 countries in a metric of subjective well-being that has been used by psychologists since 1997 ("University" n.d.). This gave credence to Bhutan's emphasis on Gross National Happiness as opposed to Gross Domestic Product. Bhutan might be poor, but its people have a life expectancy of 66 years, have more access to education and health than other countries at its economic level (CIA n.d.), and, most importantly, they seem happy.

1.3 Tourism in Bhutan

Tourism in Bhutan began in 1974 under the rule of King Jigme Singye Wangchuck in an effort to raise government revenue, promote the country's unique heritage, and develop relationships with the outside world. Since its opening, tourists have been coming to Bhutan for its unique culture and for its pristine natural beauty. In particular, tourists are often lured to learn about Buddhism and the policy of Gross National Happiness (GNH). For the first few decades, Bhutan received only a few hundred tourists a year. In 1990, the King privatized businesses. While the RGoB still has control over tourism development, tour companies were privatized one year later, causing dozens of tour companies to emerge (Digital Journal 2001). Later, when a ban on individual travelers was lifted in 2001, tourism experienced even more growth (RGoB 2009c). By 2008, there were more than 27,000 visitors (RGoB, 2009b). In that year, tourism was estimated to contribute \$38.8 million in gross earnings (RGoB, 2009b), making tourism the fourth largest contributor to government revenue (RGoB, 2009c).

Despite the importance of tourism to the economy, the Government of Bhutan is wary of the environmental and social impacts of tourism. With a guiding policy of "high value, low

impact,” the Government of Bhutan limits tourist numbers by requiring a daily tariff that covers daily accommodation, transportation, guides, and food. A \$200 tariff is used in the low season (summer or monsoon season) and a \$250 tariff is used in the high season (winter). In addition, single travelers pay more than groups do. Currently, the government takes about \$65 (\$55 in low season) of the tariff for infrastructure, health, and development programs. Aside from an additional tax, the rest goes to the tour operators. Only visitors from India, Bangladesh, and the Maldives are exempt from the tariff policy.

All other visitors must book package tours through private tourism companies in Bhutan. In exchange for the daily tariff, these package tours cover accommodation, transportation, food, and a guide. While the tourists generally are able to influence their itineraries, they are always accompanied by a guide unless there is free time. Additionally, the hotels and restaurants are selected by the tour companies and any desire by the tourists to go outside these selections requires separate payment in addition to the tariff. The high tariffs in addition to the high cost of travelling to the country are a major reason why Bhutan only receives a fraction of the number of tourists that travel to Nepal or other neighboring countries. Furthermore, while the bulk of tourists in countries like Nepal are backpackers (Brown et al. 2007), the typical tourist in Bhutan is older, wealthier, and better educated (Garung and Seeland 2008, RGoB 2009b). According to a representative of the Tourism Council of Bhutan (TCB), tourists in Bhutan are more socially and environmentally responsible than tourists in other neighboring countries. This tourist demographic works well given Bhutan’s desire to conserve its environment and culture.

Of the tourists that come to Bhutan, the 2006 International Tourism Monitor Report (ITMR) states that 85.6% of the international visitors come to Bhutan as a “cultural tourist.” In contrast, 14.4% of international visitors come for trekking. The Government of Bhutan would like to raise the number of tourists that come for trekking and other nature-based activities in an effort to raise government revenue while providing an incentive to conserve the natural environment. This is a particular priority given that nature tourists typically stay longer than culture-seeking tourists and are more likely to visit the country for a second or third time (RGoB 2001; Garung and Seeland 2008).

Up until 1997, trekkers that came to Bhutan paid less than other tourists. This was justified by the fact that trekkers typically camp and eat lower quality food than other tourists. Therefore, tour operators would not need as much money to cover food, accommodation, drivers, and other associated travel costs. Since 1997, however, trekkers have been required to

pay the same amount as any other tourist. This may be why the number of trekkers visiting the country as a percentage of all tourists has decreased from 36% in 1996 to 4.3% in 2007 (Garung and Seeland 2008). Given that tourists will want some free time before and after their trek to do other activities, the trekker could pay close to \$8,000, not including airfare, to trek in Bhutan. On the other hand, trekkers in Nepal could pay less than a third of that price.

1.4 Ecotourism in Bhutan: Definitions and Review

Despite the marketing of ecotourism in Bhutan, most of the tours are actually nature-based tourism. Ecotourism is defined by the International Ecotourism Society (IES) as, “responsible travel to natural areas that conserves the environment and improves the welfare of local people”. Martha Honey, the author of, “Ecotourism and Sustainable Development,” has provided a set of criteria for ecotourism that is quickly becoming the standard. In her mind, authentic ecotourism includes:

- Travel to natural areas
- Minimal negative impact on environment and culture
- Building environmental awareness of community and tourists
- Providing direct financial benefits for conservation
- Providing financial benefits and empowerment for local people
- Sensitivity to a host country’s political, environmental, and social context
- Support of human rights, democratic movements, and international labor agreements

Ecotourism’s priority to maintain the environment and culture is congruent with Bhutan’s Gross National Happiness (GNH) and development policies. However, ecotourism is a term that is misused in Bhutan and around the world. Unfortunately, certifications for ecotourism are not widespread and tour operators use the term ‘ecotourism’ to describe and market tours, which lack many of the criteria that Martha Honey uses to define ecotourism. In such cases, often little to no attention is paid to reducing the negative impact on the environment or to improving the welfare of local people. The misuse of the term may be due to misunderstanding on the part of tour operators or may be in an attempt to sound more eco-friendly in order to gain more business.

In 2001, a national ecotourism workshop was held, providing an opportunity for the private sector and the government to jointly develop a common understanding of tourism policy in addition to a strategy and long-term plan for ecotourism. One product of this

workshop was the National Ecotourism Strategy of 2001. In this document, TCB stated its own definition of ecotourism as “styles of tourism that positively enhance the conservation of the environment and/or cultural and religious heritage, and respond to the needs of local communities.” Essentially this definition is less aggressive about its contribution and involvement of local communities than the definitions provided by Martha Honey or IES. This is partly due to the inability of ‘fixed-package’ tour operations to spread economic benefits and also due to the tour operators’ unwillingness to involve local communities. While tour operators often support the principle of involving local communities, this does not often occur in practice. According to surveys performed at the Nabji-Korphu Trail ecotourism pilot project, tour operators were reluctant to involve locals for two main reasons: 1) the locals are not trained in western standards of comfort, including hygiene, and 2) the locals’ knowledge and delivery of English is limited (Garung and Seeland 2008).

Rural communities presently do not benefit much from tourism. Many of the hotels that tourists stay in are run by elite Bhutanese or foreigners (especially from India). The majority of tourists’ meals are eaten at these hotels. Tourists are usually driven to their various destinations by drivers from Thimpu, and tourists typically buy souvenirs from stores catering towards tourists. On a typical trekking tour, tour operators often pitch tents in non-designated camping areas to avoid having to pay fees. They buy most of the food they cook from the capital city of Thimpu. They also hire guides, drivers, and cooks from Thimpu or other larger settlements. Between food, accommodation, guides, and drivers, there is little use for locals, except as porters or as sellers of handicrafts. Much of the money spent by tourists, therefore, only benefits a small percentage of Bhutan’s citizens and many of these people are apparently well-to-do members of society (Garung and Seeland 2008).

While ecotourism is still promoted in Bhutan, the Tourism Council of Bhutan (TCB) is phasing out its use of the term. According to a representative from TCB, ‘ecotourism’ is so commonly misused that terms like ‘responsible’ or ‘sustainable tourism’ are preferred. Whenever tourism involves communities, it is preceded by the words, ‘community-based’. This change in terms may also be reflective of the tour operators’ inability to currently meet the true criteria of ecotourism. Buckley (1994) and Garung and Seeland (2008) have suggested that the Tourism Council of Bhutan (TCB) may be defining tourism based on its own goals and objectives (Garung and Seeland 2008). If programs can be put in place to provide sufficient training to community members in both English and Western standards of comfort, tour operators may use communities more frequently in their tours. This additional income may

incentivize community members to better conserve their natural and cultural resources, and ultimately lead to true ecotourism.

1.5 Protected Areas and Jigme Dorji National Park

Bhutan sits on one of the world's hot spots of biodiversity and is habitat to a number of endemic and globally threatened species (Garung and Seeland 2008). The Royal Bengal tiger (*Panthera tigris*), Asian elephant (*Elephas maximus*), snow leopard *Panthera uncia*), clouded leopard (*Neofelis nebulosa*), Himalayan black bear (*Ursus thibetanus*), and red panda (*Ailurus fulgens*), are just some of rare species found in Bhutan. This rich biodiversity can be attributed to a range in elevation resulting in sub-tropical lowlands in the south to alpine zones of the Himalayas in the North. This biodiversity has been protected as a result of Buddhist philosophy, which promotes respect for all forms of life, such that bulldozing, clear cutting, hunting, and otherwise exploiting nature is not legally or culturally acceptable. As such, Bhutan has adopted a 'middle path' development philosophy, supporting the integration of conservation and sustainable development. This policy seeks to forgo short-term economic benefits at the expense of long-term loss of Bhutan's natural heritage. Similarly, Gross National Happiness (GNH) has replaced GDP as an indicator of progress, and one of the four pillars of GNH is conservation. Therefore, Bhutan's long-standing resistance to industrialization and economic growth has provided for a pristine and contiguous habitat with 72.5% of the country's 38,394km² geographical area under forest cover (RGoB 2009a).

In 1966, King Jigme Dorji Wangchuck declared that the royal family's former hunting reserves would become the Phipsoo and Manas Wildlife Sanctuaries. This protection of habitat was an attempt to protect wildlife from an ongoing threat of poachers in Bhutan and from across the Indian border. Species like the Royal Bengal tiger, leopard (*Panthera pardus*), Asian elephant, and one-horned rhinoceros (*Rhinoceros unicornis*) were and continue to be mammals of concern. Later, RGoB passed the Bhutan Forest Act of 1969, declaring all forests to be Government Reserved Forests, and restricting people's access to timber and non-timber forest products. Additionally, "poisoning water, hunting, shooting, fishing, or setting traps or snares" was prohibited in the reserves. In 1995, RGoB passed the Forest and Nature Conservation Act, which finally provided some objectives for the 1969 law, stating that the government may declare forest land in order to protect public health and safety, prevent landslides on highways, maintain critical watersheds, conserve flora and fauna, and to preserve scenic areas. In

declaring privately registered land, the government must provide financial compensation or alternative land rights.

After successful lobbying of the King and top politicians by the World Wildlife Fund to adopt a US-style approach to protected areas, the RGoB, in 1972, expanded the existing protected areas to eight total parks, reserves, and wildlife sanctuaries. These areas were revised and enlarged through the years to maximize biodiversity representation, establish buffer zones, and to incorporate corridors that connect the eight areas. In all, protected areas make up about 27% of the land in Bhutan (RGoB n.d.).

Jigme Dorji National Park (JDNP) was first established in 1974 along the northern border with Tibet. After a number of revisions to maximize biodiversity, JDNP now covers the northwest corner of the country and has protected corridors to nearby parks. At 4349 km², JDNP is the largest national park in Bhutan. From the high peaks of Jomolhari, Tsherimgang and Jichu Drakey to the subtropical valleys below, JDNP contains a number of ecosystems that hold a diverse range of species. There are over 300 species of birds and 30 species of mammals, including: red pandas, Himalayan black bears, clouded leopards, wild dogs, Himalayan serows, sambar, and musk deer. Additionally, this park may be the only place in the world where the Royal Bengal tiger and snow leopard are found together. Finally, JDNP is the only park where all four national symbols can be found: the takin, Himalayan cypress, blue poppy, and the raven.

In addition to wildlife, the park is home to about 6,500 people who have a rich culture and history in the area. The different communities include Layaps, Lunaps, Geons, and Gasaps. The isolated Layaps and Lunaps are semi-nomadic yak herders who have a unique dialect, culture, and style of dress. The Geons and Gasaps are those living closer to the bigger cities of Punakha and Paro and practice animal husbandry and agriculture. All of these groups have their own religious customs and festivals that are interesting to visiting tourists.

JDNP contains four major rivers and a number of hot springs. The most famous of these hot springs is in Gasa, where national and international tourists come to enjoy the healing power of these waters. While trekking and wildlife are the main attractions that bring tourists to Jigme Dorji National Park, the management of Gasa hot springs by local villagers is seen as a great way to economically benefit and engage local communities with tourism.

1.6 Gasas Hot Springs Project Overview

In 2001, the United Nations Development Program (UNDP) Small Grants Program (SGP) issued a \$50,000 grant to an organization of community members within the park called the Gasas Ecotourism Association (GEA). This organization was established in order to develop Gasas hot springs in Jigme Dorji National Park into a community-managed ecotourism enterprise. The overarching objective of the project was to resolve conflicts between conservation in the park and economic development through the promotion of ecotourism as an alternative and sustainable livelihood. During Phase I of the project, the aim was to raise awareness about the project, establish principles, create infrastructural improvements, and begin institutional development and capacity building. Phase II of the project involved further capacity building of GEA and improvements to the hot spring facilities.

While the hot springs had traditionally been run by the Gasas dzongkhag (district government), the district welcomed turning over the management to the surrounding community. In an agreement with the GEA, the dzongkhag agreed to provide technical assistance and backstopping to GEA until GEA was able to gradually take more responsibility for the project. Unfortunately, it became apparent that this project resulted in little capacity building among the community members aiming to manage the project and little infrastructural improvements to the hot springs. Additionally, not enough income was derived from the project to either support the upkeep of the facilities or to provide a sustainable income for the community members managing the project. Once the UN project finished, the dzongkhag resumed control over the hot springs with little input from the GEA. In 2008, the Goenkham Village Ecotourism Project (GVEP) was formed and resubmitted a proposal to the Small Grants Program to revitalize the community-management of the hot springs. Due to the various issues associated with the initial project and because of a lack of coordination with the Association of Bhutanese Tour Operators (ABTO), the project was put on hold. Then in the spring of 2009, a flood washed the hot springs facility away, diverting the waters into the Mochu River.

Even though the hot springs facility was ruined by the flood, this situation has created an opportunity for a new beginning. There is a lot of interest among community members, various levels of government, and those involved with tourism to redevelop the hot spring facilities. With lessons learned from the previous project and improved coordination, it will be possible to develop this into a successful community-managed ecotourism project.

2. General Approach and Methodology

This Masters Project is an extension of my internship in August 2009 with the Nature Conservation Division (NCD), within the Department of Forests of the Royal Government of Bhutan. This paper was written between August 2009 and April, 2010 using the following methods of analysis:

2.1 Visits to Jigme Dorji and Thrumshingla National Parks

During the month of August, 2009, I was accompanied by Nature Conservation Division staff to visit Thrumshingla National Park in the Bumthang Valley and Jigme Dorji National Park in the northwest of Bhutan. My visit to Thrumshingla consisted of a 'mushroom hunt' and a visit to the educational center. In Jigme Dorji National Park, I spent the majority of my time in Damji (the park headquarters) collecting data on the park, its management, and its tourist assets. My time in the park consisted of two visits to the local school, a visit to the local health clinic, an analysis of the visitor center, a bird watching activity, and several hikes. I also trekked to the village of Gasa to interview various stakeholders and better understand the village's capacity for ecotourism.

2.2 Interview with Stakeholders

Using a pre-determined set of questions, I interviewed a variety of stakeholders including: community members in Gasa, tour operators in the US and in Bhutan, and representatives from the Kata *geog* (block government), Gasa dzongkhag (district government), Jigme Dorji National Park, Nature Conservation Division, Association of Bhutanese Tour Operators, Tourism Council of Bhutan, and the UNDP Small Grants Program. Most of the interviews were conducted by me in English, but interviews with community members and local government administrators were in Dzongha (the language of Bhutan) and conducted by my guide, Phuntsho Thinley of the Nature Conservation Division. While there were common questions asked of all interviewees, there were also questions designed specifically for each person and as a result of their responses.

The following topics were discussed with stakeholders: attitudes towards ecotourism, plans for ecotourism in Gasa; community involvement in tourism projects; feasibility of eco-

tourism in JDNP and Gasa; facilities and attractions in JDNP and Gasa; strategies of implementation and sustainability of projects; and challenges and lessons learned from the former Gasa ecotourism project. For a list of common questions, please see Appendix A.

2.3 Survey of Tourists and Tour Operators

Two surveys were created for this study. One survey was designed for English-speaking tourists that have already traveled to Bhutan and another was designed for representatives of tour companies operating in Bhutan. Both surveys were implemented through the use of Survey Monkey, an online tool, which allowed me to provide a link in an email to potential respondents. In the e-mail, I explained the purpose of my research, described the survey, and provided information to ensure their informed consent in the process. Prior to designing the surveys, I received “certification” from the Collaborative Institutional Training Initiative for research on human subjects. Both surveys and corresponding messages were approved by the Campus Human Subjects Protections Program at Duke University.

The tourist survey contained 24 questions and the tour operator survey contained 30 questions. (See Appendix B.) The tourist survey was designed to examine trends in their experience, preferences of certain activities, and willingness to pay for ecotourism-related activities. The tour operator survey was designed to test tour operator understanding of ecotourism, to find trends in tour operator practices, to determine their willingness to involve or benefit local communities, and to gage their interest in bringing tours to Jigme Dorji National Park. (Please see Appendix C.)

I distributed the link to my survey and corresponding message to tourists in a variety of ways due to the difficulty of finding people who had traveled to Bhutan. I contacted people in my personal network that had visited Bhutan and asked if they were able to put me in touch with others that had traveled to Bhutan as well (i.e. snowball sampling). I also contacted several tour operators who, after stating their willingness to help, put me in contact with tourists they thought might be interested to participate in my research. As a result, I distributed a total of 89 e-mails with the link to my survey and corresponding message. I also used Facebook, a social networking site, to send messages to people who belonged to Bhutan associated groups. In all, I sent 25 Facebook messages.

Finally, I also signed up to use the following travel forums: Thorntree’s forum for Lonely Planet, Trip Advisor, and Virtual Tourist. I contacted staff of all three websites to get permission

for contacting their members for my research. On those forums I looked for members that had mentioned their travel to Bhutan and sent them personal messages through those websites. On the Lonely Planet forum, I was able to distribute 46 private messages to members that had advertised traveling to Bhutan. On the other forums about 20 were distributed. (See Section 5.) In all, about 200 surveys were distributed. Of these distributed messages, I received 85 responses, which is a 42.5% response rate. This is higher than the average response rate of 35% for online surveys (Hamilton, 2009). Of the 85 people who participated, 66 people (77.6%) completed the entire survey.

For the tour operator surveys, I distributed e-mails to 232 representatives of all the tour companies in Bhutan as advertised on the Tourism Council of Bhutan's website. (See Appendix D.) With seventeen e-mail addresses returned as undeliverable, I had successfully distributed a total of 215 e-mails containing the link to my survey and the description of the research. In the end, 63 tour operator representatives participated in the survey, a response rate of 29%. This is lower than the 35% average response rate of online surveys (Hamilton 2009). Of the 63 that chose to participate, 43 completed the entire survey (68%).

3. Results

3.1 Interviews

Question 1: What are the issues in the park?

The park staff and new park manager agreed that the park staff in general need more resources, staff, and capacity to carry out their policy mandates and management plans. This seems to particularly be the case for monitoring the park resources. There are increasing instances of poaching, wildlife kills, and overharvesting of natural resources both by communities living in the park and border invaders from China. Further examining issues among the communities, Jigme Dorji National Park is located in one of the most rural and remote areas of the country. Poverty rates are very high here as most people sustain their livelihoods with small-scale subsistence farming and yak or cattle herding. Even if the people wanted to sell their goods, there is no access to markets other than a few people that sell medicinal plants to the National Institute for Traditional Medicine in Thimpu. The indigenous groups in the park (communities in Laya, Lunana, and Lingzhi) are seasonally nomadic herders

that graze their animals in the highest and most remote areas of the park during the summer and travel south in the winter. Literacy rates in the park are very low. There is only one road in the park that extends to Damji (the park headquarters), so mobility around the park is limited to walking on foot. There are also very limited electricity, telephones and no internet in the park so communication is difficult.

When the park was established in 1974, people were already living in the park. Restrictions were placed on them including prohibitions on hunting, fishing, and killing wildlife, and quotas were placed on harvesting forest products, sand, and stones. There has been increasing tension between community members and park management, with a growing sentiment that park staff values wildlife and natural resources over people. While the park struggles to monitor or enforce regulations, it appears that communities are not respecting the rules. Retaliations of livestock depredation are becoming more commonplace as guards are discovering that wildlife are being poisoned. The exploitation of sand, stone, timber and *Cordyceps sinensis* is going beyond quota and is largely unregulated. For instance, to regulate the harvest of the *Cordyceps sinensis*, up to three people per household are issued a permit to harvest a certain amount of the fungus during certain times of the year. During other times, villagers are unrestricted. The villagers are supposed to weigh and register how much they collect, but the numbers are inaccurate and very little monitoring of the process occurs. Increasingly, invaders from China are killing or collecting wildlife (including *Cordyceps sinensis*) and play a large part in poaching of timber, other forest products, and wildlife.

Finally, the park would like to focus on institutional strengthening and building up self-sufficiency of the park. From 1997 - 2003 the park worked with the UN to build capacity and improve integrated management of the park, but more needs to be done and the park has very little staff and resources. This is especially the case as the staff attempts to improve monitoring and enforcement of poaching, forest product restrictions, and international invaders. (See Table 1.)

Table 1: Summary of Responses to Question 1

Question 1: What are issues in the park?	
Participant	Views and comments
Park Manager, staff	Community lack of resources --About 6,500 people (1,000 households) live in the park. They are totally dependent on the park's natural resources for their livelihoods, including small-scale agriculture and grazing. There is low agricultural production, no access to markets, outdated technology, and limited electricity. Additionally, there is only one road that enters the park and only goes to Damji, which is not far into the park. There is little communications infrastructure (phones, internet). Illiteracy and poverty rates are very high.
	Human-wildlife conflicts – There is increasing crop damage from animals like wild boars and livestock depredation by big cats and wolves. Also, there are 1-2 bear attacks every year in JDNP. Community sentiment is that the park values wildlife over people. As a result, community members kill wildlife in retaliation. WWF recently initiated a compensation program for the livestock kills, but it is in an infancy stage of development.
	Overuse of resources – Community have quotas and restrictions on wood and other forest products that can be harvested from the park. There are also restrictions on hunting, killing wildlife, and fishing. Despite these policies, however, villagers are harvesting beyond their quotas, especially for timber, sand, stone, and the lucrative <i>Cordyceps sinensis</i> (caterpillar fungus).
	Poaching and international invaders - There are many poachers crossing over from China who are illegally harvesting timber and <i>Cordyceps sinensis</i> ; and killing or collecting wildlife.
	Institutional strengthening of park - The park was funded by the UN in 1997-2003 to build institutional capacity and improve management in the park. The first phase of the project was generally successful (building infrastructure, improving management, establishing guard posts), but the second phase of the project, which was based on use of alternative energy, was not. More capacity building is needed as there are not enough workers, resources, and knowledge to do all that is needed to monitor and manage the park. There are currently 43 park staff members including 4 caretakers, 6 temporary workers, and 12 resups (village forest guards).
	Self-sufficiency of park - The park is currently reliant on outside funding sources for its management. There needs to be value-added to the park.

Question 2: How do tourists currently access or enter the park and what procedures are necessary?

In order for tourists to enter the park, tour operators are required to obtain a permit on their behalf from NCD. These permits are collected at check points that are found along the roads that groups would have to travel on from Thimpu or Paro to get to the park. There is no fee to enter the park. There are three main ways that tourist groups or trekkers enter the park. One way is to trek or drive to Damji via the road and then trek to Gasa and beyond. Another way is to start the hike from beyond the border of the park and enter near the range offices of Rimchu or Soe (the main trekking base camp). The number of tourists that stop at the park headquarters in Damji is very little (perhaps only 10-15 a year), despite the visitor center and educational exhibit that is available. (See Table 2.)

Table 2: Summary of Responses to Question 2

Question 2: How do tourists currently access or enter the park and what procedures are necessary?	
Participant(s)	Views and comments
Park staff	Permit- Tourists are required to have a permit from NCD to enter all national parks and tour operators arrange this beforehand. The permit is given to guards at a checkpoint along major roads in Bhutan.
	Fee- There is no fee to enter parks.
	Entrance- Trekkers often begin their hikes beyond the border of the park and pass through two range offices as they enter the park. The main entrance goes past Soe and the other goes past Rimchu. Otherwise, the tour groups can follow the road or drive to Damji and continue on the path to Gasa and beyond. (See Appendix E.)

Question 3: In what ways are community members currently involved in tourism in JDNP?

According to the park staff, the main way that inhabitants of JDNP are currently involved in tourism is via portering services. This encompasses not only people who carry trekking and camping gear for tours but also those who charge for the use of their horses and pack animals. In addition, communities have participated in the management of campsites and guesthouses in the park. One campsite in Gasa (washed away in a flood) was well managed by the community and *dzongkhag* (district government). Another one in Damji was co-managed by community members and park staff. A local school was also in charge of maintaining the facilities and planting flowers. Unfortunately, as very few tourists actually stayed there, locals chose to graze their animals within the campsite fence. The school dropped their involvement due to a change in management at the school and the long distance of the school to the campsite. The campsite still gets used, but not frequently.

One park staff member believed there were three guesthouses in the park and another believed there were five. The guesthouses were directed by TCB and it was unclear how involved the community was in the management of the facilities. Finally, a major initiative for community involvement came in 2001 when the Gasa Ecotourism Association received funding from the UNDP Small Grants Program to develop the Gasa hot springs as a community-managed ecotourism venture. Four *gups*, or administrative heads of block governments in the district, and various community members received help from the district government to make this possible. Unfortunately, the project generally failed and GEA handed much of the responsibility back to the *dzongkhag* until the facility was washed away in a flood in 2009. (See Table 3.)

Table 3: Summary of Responses to Question 3

Question 3: In what ways are community members currently involved in tourism in JDNP?	
Participant(s)	Views and comments
Park staff	Portering – Portering is probably the main way that community members benefit from tourism. Will the new road being built to Gasa affect their business?
Park staff, District government	Accommodation - TCB gave a few guesthouses to the national park, but they are not in great condition. One staff member believes one guesthouse may be community-run, but was not sure. Also, the park worked with community members to manage a campsite in Damji, but the site was mismanaged and people broke a lock on the fence to allow their animals to graze. At one point the local school did some gardening on the grounds, but the site was too far from the school and the school relinquished responsibilities there. In Gasa, the dzongkhag worked with communities to manage a campsite in Gasa, which worked fairly well until it was washed away in the spring 2009 flood. In Koina, there is a community and government managed campsite with a common kitchen, new fence, and toilet.
Park staff, local governments, NCD	Hot springs – Prior to the spring flood in 2009, community members making up the Gasa Ecotourism Association worked with the dzongkhag and Geocs to build infrastructure and develop the hot springs as a community-managed ecotourism project. Prior to this initiative, the dzongkhag was in charge of managing the hot springs and only about two years into the project, the GEA handed most responsibilities in the hot springs management back to the dzongkhag.

Question 4: What are tourists typically interested in?

The tour operators participating in my interview agree that tourists to Bhutan want to learn about, interact with, and understand the culture. Some suggestions for activities include learning about Buddhism or calligraphy from monks, archery (the national sport), volunteering, and general interaction with locals. Tourists on treks really enjoy interacting with locals around campfires, since it is an opportunity to hear Bhutanese folklore and singing. Tourists can engage with Bhutanese in a number of ways like learning how to milk yaks and make dried cheese, learning how to make rice cakes, observing the paper making process with the daphne plant, and observing weavers create textiles.

According to a US tour operator, there is also an increasing interest among tourists in adventure tourism like white-water rafting, kayaking, bicycling, and trekking. This participant also emphasized that tourists seek a diversity of activities and experiences while traveling in Bhutan. For instance, while they want to understand local culture and see what a guesthouse would be like, they are also interested in staying at luxury hotels. They also want a variety of activities like camping, adventure, shopping, birding, and visits to monasteries. Finally, the US operator added that tourists really enjoy hot stone baths and hot springs to relax. One common concern, however, relates to cultural differences; Bhutanese do not respect western desires for

privacy when bathing. She stated that Bhutanese ‘waiting’ on tourists should not stare at tourists, otherwise facilities should allow for private baths. (See Table 4.)

Table 4: Summary of Responses to Question 4

Question 4: What are tourists typically interested in?	
Participant(s)	Views and comments
US Operator	Diversity of activities- Tourists like to experience a range of activities during their stay in Bhutan. For example, days with shopping, adventure (rafting), camping, touring, etc. They also like to camp or see how the locals live by staying in rustic guesthouses, but they like to balance this with luxurious hotels as well.
US Operator	Adventure tourism – There’s a growing interest in adventure tourism like hiking, white-water rafting, and mountain biking.
US and Bhutan operators	Understanding locals/culture- Most tourists that come to Bhutan are interested in Buddhism, culture, and the way of life in Bhutan. Some activities that tourists are interested in include: interacting with locals with archery lessons, singing, campfires, volunteering (with schools or hospitals) and making rice cakes or dried cheese from yaks. Tourists are also interested in observing people weaving textiles and monks doing calligraphy.
US Operator	Hot stone baths and hot springs – Tourists like relaxing in hot baths, but one issue is privacy. It can be disconcerting to tourists when Bhutanese stare at bathers in hot baths, which might occur when Bhutanese are just trying to ‘wait on’ the bathers.

Question 5: What are the negative impacts of tourism?

According to a TCB representative, the impact of tourism on the environment and culture in Bhutan is very minimal. He stated that any changes to the Bhutanese culture are due to the introduction of TV and educational initiatives in the country. He asserted that cultural change is not a problem, because culture is not static. He pointed out that he no longer wears the traditional dress when he does not have to, and that he is very different from his grandparents. He stated that it is all right for people to be materialistic as they have to make a life for themselves. He stated that one impact of tourism is that community expectations of tourism benefits are too high. He said it would be good to promote tourism as a supplemental rather than an alternative source of income.

The Bhutanese tour operator I interviewed said that TCB and ABTO have put very good policies in place to minimize the environmental and cultural impacts of tourism. Yet, he noted that not all tour companies follow these procedures or advise their tourists of the rules. Therefore, he made the recommendation that tourists receive a checklist when they arrive in the country. The checklist would ask tourists the name of their tour company and ask them which of the listed policies were adhered to during the tour. The tourist would then drop the checklist off at the airport when exiting the country. (See Table 5.)

Table 5: Summary of Responses to Question 5

Question 5: What are the negative impacts of tourism?	
Participant(s)	Views and comments
Bhutan tour operator	Tour companies do not adhere to rules – While the TCB and ABTO have policies to reduce the environmental impact of tour groups, including how to wash dishes, how to bury waste on treks, etc., these rules are not always followed. He recommends that tourists be given a checklist upon their entrance to the country to determine if their tour group obeyed given rules. This checklist would then be submitted at the airport when tourists leave the country.
TCB	Minimal environmental/cultural impacts - A representative from TCB believes that tourism has very little impact on the culture or the environment. He said that any changes to the culture are from the introduction of TV and from education initiatives in the country. He said this is fine because culture is not static; it's okay for people to be materialistic and make a life for themselves.
	Expectations too high - The representative from TCB believes community expectations are too high. They become discouraged when they discover that tourism is not as lucrative as they would have believed.

Question 6: What are the natural, cultural, and recreational assets in JDNP for tourists?

When interview participants were asked what the natural, cultural, and recreational assets for tourists are in JDNP, I received very similar responses. For natural assets, there is a wealth of biodiversity in the park and JDNP is the only park that is habitat for all four symbols of Bhutan: the raven, takin, blue poppy, and Himalayan cypress. While mammals like the snow leopard, Royal Bengal tiger, and red pandas certainly are attractive to tourists, they are very difficult for tourists to actually see in the park. On the other hand, a great diversity of birds, some species of monkeys, and the takin (the national animal of Bhutan), is much easier to observe. There are also a great variety of waterfalls and snow-covered peaks, which serve as assets for tourists in the park. Regarding cultural assets, there is plenty of folklore unique to the area of the park and there are indigenous groups like the Layap that have a unique language and dress, including a conical bamboo hat. Finally, there is a four day festival in Gasa complete with mask dancing, singing, prayers, and storytelling.

Regarding historical sites, there are a number of old ruins around the park and a famous *dzong* (fortress-Monastery) in Gasa, built in 1669. There are also old trading routes, many of them being used as trekking paths today. Apparently the dzongkhag (district government) is in charge of maintaining certain routes every year and they have plans to repair an old route from Gasa to Lingzhi. According to the officiating head of the Gasa dzongkhag, there are twelve medicinal waters close to the village of Gasa and probably 100 in the entire district.

Beyond trekking, there are other recreational assets that have a lot of potential but have not been fully developed in the park. For example, mountain bicycling and white water rafting would be possible to do given the mountainous terrain and the presence of the Phochu and Mochu rivers. (See Table 6.)

Table 6: Summary of Responses to Question 6

Question 6: What are the natural, cultural, and recreational assets in JDNP for tourists?	
Participant(s)	Views and comments
Park staff, local governments	<p>Natural: Biodiversity: Great birding, four symbols of Bhutan, and monkeys. <i>Waterfalls and scenery</i> – The park is full of waterfalls, snow-covered peaks, and beautiful landscapes.</p>
	<p>Cultural: Indigenous groups: Layaps and Lunaps have unique dress, culture, and language. <i>Folklore:</i> There are a variety of stories and folklore unique to the area. <i>Historical:</i> The <i>dzongs</i> (fortress-monasteries) in Gasa and Lingzhi were built in the 1600s. Trekking routes are based on old trading routes in the area. <i>Festival:</i> There is a four-day festival in September with mask dancing, singing, prayers, and storytelling of the history of Bhutan.</p>
	<p>Recreational- Trekking: Very popular trekking routes in JDNP include: Jomolhari, Snowman trek, Gasa-Laya, etc. <i>Gasa hot springs-</i> most popular hot springs in Bhutan (though currently unavailable due to a recent flood). <i>Other:</i> beyond trekking and hot springs, recreational tourism is largely undeveloped, but there is potential for white-water rafting or other water-based recreation due to two major rivers in the park: the Phochu and Mochu. Mountain bicycling is also a possible activity.</p>

Question 7: Is the local community supportive of tourism?

When participants were asked whether the community in JDNP is supportive of tourism, I received generally positive responses. I asked a few villagers in Gasa about their interest in tourism. One villager was the owner of a small store/restaurant that is set up along the trekking path from Damji, where the park headquarters is located and Gasa, where the hot springs are located. He was very interested in having more tourists, though not necessarily interested in participating in the Gasa hot springs management. He was also disappointed that the road that is being built to Gasa will not go past his shop. The other villagers were interested in tourism and the economic benefits that come with it, but they were not sure how to become involved or otherwise manage the hot springs.

When I asked park staff, two staff told me that community members are indeed interested, given their desire for economic development in the park, but another staff member told me that community members are happy with the status quo, doing small-scale agriculture and seasonal yak-herding. According to a local government official in the park, community

members are interested in ecotourism and managing the Gasa hot springs, but they lack leadership, direction, and commitment; probably because they have very little capacity and do not know how to move forward. One participant from the Tourism Council of Bhutan claimed that communities' expectations are too high for tourism because there are not enough tourists in Bhutan to provide a full income to communities. He said that community members need to be aware that they will only receive supplemental income from tourism. He also added that communities in JDNP can make more money from harvesting *Cordyceps Sinensis* than from tourism, so he does not think that tourism would be too interesting for many villagers once they realize that tourism is not lucrative. (See Table 7.)

Table 7: Summary of Responses to Question 7

Question 7: Is the local community supportive of tourism?	
Participant(s)	Views and comments
Community members, park staff	Interested in economic benefits- Community members and park staff expressed an interest in the economic benefits that come with ecotourism.
Park ranger in Gasa	Happy with status quo- One staff member said that community members are happy maintaining their current livelihoods.
Community, local government, park staff	Lack capacity- According to interview participants, the community members are interested but do not know how to be involved. They lack leadership, direction, and commitment.
TCB	Expectations too high- Community members' expectations of economic benefits are too high. They should be made aware that tourism can only provide a supplemental and not an alternative income source.

Question 8: What's the best way to market ecotourism in JDNP or link tour operators to the park?

When I asked participants about the best way to market ecotourism in JDNP or to link tour operators to the park, I was told to make it well known to tour operators what is available for tourists in the park. Park staff, local government, and members from ABTO and TCB all said it would be helpful to develop a set of itineraries for a range of possible days in the park. This would allow for tour operators to set up package tours in the park. (See Table 8.)

Table 8: Summary of Responses to Question 8

Question 8: What's the best way to market ecotourism in JDNP or link tour operators to the park?	
Participant(s)	Views and comments
TCB, Bhutan tour operator	Raise awareness – It is important to make it well known among tour operators what is available and what the assets in JDNP are.
TCB, Park staff, Bhutan tour operator	Create itineraries – There should be 2-5 day itineraries that tour operators can use to plan trips to the park.

Question 9: How can tourism in JDNP involve or benefit local communities?

I also asked interviewees how tourism in JDNP can benefit local communities. Both the US and Bhutan-based tour company owners suggested activities that community members could do with tourists including: teaching archery lessons; interacting with monks and learning calligraphy; showing how to milk yaks and make dried cheese; showing how to weave textiles, making rice cakes; providing dance/singing performances; and volunteering to plant trees or teach at local schools. The US-based tour company owner also suggested a local craft gallery and store, perhaps at the park headquarters, that would sell local handicrafts as well as drinks, food, bug spray, sunscreen, binoculars, and popular books and nature guides. The Bhutan-based tour company owner also suggested that villagers can be paid as security guards for tourists in the park. Park staff suggested that community members could further develop portering services, sell organic food to tour groups, and become local expert guides in birds and medicinal plants. Finally, local government and park staff suggested that locals can earn money from managing guesthouses and campsites. Apparently three guesthouses were built by TCB or ABTO in the park, but more could be developed. Regarding camping, I was told that tour companies do not often camp in designated campsites and, therefore, locals become discouraged and discontinue managing the sites. According to participants at ABTO and TCB, it is best for a leader or well-off entrepreneur to start the campsite or guesthouse and lead as an example to other community members that follow suit. They do not suggest ‘socialistic’ community-run enterprises and community development funds. They do not believe these can be as successful as entrepreneurial or ‘capitalistic’ approaches. (See Table 9.)

Table 9: Summary of Responses to Question 9

Question 9: How can tourism in JDNP involve or benefit local communities?	
Participant(s)	Views and comments
US and Bhutan tour operators	Interactive or learning activities: archery, calligraphy from monks, weaving textiles, paper-making, milking yaks and making dried cheese, and making rice cakes.
Park staff, dzongkhag	Cultural performances- tour operators could hire locals to perform dances, songs, or tell folklore.
Park Staff, local governments	Hire for services- further hiring of locals (and their animals) as porters, guides, cooks, security guards.
Park staff, US tour operator	Sale of goods: Locals can sell organic produce, medicinal plants, and crafts. It’s recommended that the park headquarters have a craft showroom and store selling handicrafts, drinks, food, bug spray, sunscreen, binoculars, and popular books and nature guides.
TCB, ABTO	Entrepreneurial approach- Suggests that a community approach may be less successful than an entrepreneurial approach whereby one ‘well-off’ individual sets an example for others in the park.

Question 10: What were the major failures and successes of the Gasa hot springs project led by the Gasa Ecotourism Association? What led to the results?

I asked representatives of TCB, ABTO, the UN, and local governments what the major failures and successes were of the Gasa hot springs project led by the Gasa Ecotourism Association. Unfortunately, community members that made up that association were unavailable for interview. According to the interviewees, the Gasa hot springs facilities were improved and there was great interest among community members to become involved in the project, but everyone determined that the project was an overall failure. The biggest reason cited for this failure was that the community members did not have the capacity or know-how to manage the hot springs facilities and make it an ecotourism venture. One interviewee said this was due in part to their lack of education. Another commonly cited reason for its failure is that there was not enough money or resources available to get the project running smoothly. According to a representative of the Goenkhatoe block government (geoc), surrounding the hot springs, the \$50,000 received by the UNDP Small Grants Program was not used wisely. He said that village headmen from four blocks near the hot springs were to rotate leadership over the management of the hot springs every year, with the headman of the Goenkhamé block leading during the first year of the project. Apparently, the Goenkhamé leader used much of the money on a study tour of hot springs in the Philippines. When he returned, some improvements were made to the infrastructure and facilities of the hot springs, but the money was exhausted before all of the plans could be implemented.

Another issue with money is that there was not enough of an incentive in managing the hot springs to keep community members engaged. According to the representative of the Kate block government that surrounds the hot springs, most visitors to the hot springs are nationals rather than tourists. Since I was unable to interview people most closely associated with the project, I was unable to determine how many people visit the hot springs every year. This may range from several dozen to a few hundred tourists every year. Apparently, there are many more national visitors than foreigners. According to the interviewees, many Bhutanese feel that the hot springs are national property and refuse to pay a fee when asked. The managers of the hot springs decided not to push this fee and eventually stopped charging visitors to the hot springs. For this reason, once the UNDP money ran out, there was no money to maintain the hot spring facilities. Furthermore, without charging fees, the community members managing

the facilities were not making any money from the venture and lost interest in the project. They then handed back management of the hot springs to the Gasa dzongkhag that was originally in charge of its upkeep, saying they did not have the resources or time to devote to the hot springs.

Lack of organization also appears to be central to the project's failures. According to the Goenkhatoe block representative, when the Goenkhome village leader rotated leadership to the Kate village leader in 2003, there were no documents, files, or any information transferred to him. This further exacerbated the lack of capacity of the community members to manage the hot springs. Also, changing project management from one gup to another may have led to inefficiencies and there was no real leadership among them. Additionally, the UN and block representative said no policies were in place to protect the hot springs and to manage them. This is a problem because most of the nationals that visit the hot springs are apparently teenagers that pollute, vandalize, and steal from the hot springs. There is no fence around the hot springs, so there is no way to keep people out. The hot springs are perceived as an open access resource. The Goenkhatoe gup said there were no rules or enforcement of rules at the hot springs.

Generally, there was also a severe lack of coordination among the community members themselves and with other stakeholders. The Gasa Ecotourism Association was made up community members and village headmen (gups) from four geops in the park: Goenkhatoe, Goenkhome, Lunana, and Laya. It was very difficult for these community members to coordinate the Gasa management because they were quite dispersed within the park. Additionally, they had their own responsibilities in their respective blocks. For instance, Laya is a two day walk from Gasa and Lunana is a twelve day walk from Gasa. Furthermore, phones are not commonplace and internet is totally unavailable. The gups certainly have other responsibilities to attend to in Laya and Lunana and are unable to be involved with the hot springs on a regular basis. In fact, the members of the Gasa Ecotourism Association only met two to three times a year to discuss issues and concerns relating to the hot springs.

Coordination was also low among the community members, tourism representatives, district government, NCD, and park staff. In fact, the two local governments and NCD had all revised plans to restore the hot springs after the damage of the spring flood of 2009; however, none of these groups had coordinated their efforts with one another. This is why TCB and ABTO representatives said one of the major problems with the project is a lack of coordination among stakeholders. In fact, according to the UN representative, a second proposal for UNDP funding

made by community members in partnership with the district government was put on hold due to a lack of coordination with ABTO. The ABTO participant in my interview also happens to sit on the board of the UNDP SGP that decides who receives grants. Since he was not consulted, he denied the approval of this project. (See Table 10.)

Table 10: Summary of Responses to Question 10

Question 10: What were the major failures and successes of the Gasa hot springs project led by the Gasa Ecotourism Association? What led to the results?		
Failure/Success	Participant(s)	Views and comments
Successes	Block government	General improvements: The facilities were improved, the Goenkham gup learned about managing hot springs through a study tour, and community interest was high to manage the hot springs.
Failures	ABTO, UN, local governments	Little capacity – Community members had little know-how to manage hot springs as an ecotourism venture.
	Block government, TCB, ABTO	Not enough resources – Not enough community members were engaged in the project and not enough money from the UN was provided to ensure the sustainability of project.
	TCB, ABTO, Block government,	Little coordination- Community: Coordination was weak among community members given the distribution of GEA members at far ends of the district. <i>Community & stakeholders:</i> There was not enough coordination among park staff, local governments, and the community.
	Block government, UN	Lack of organization- The GEA either did not establish rules or policies, or did not implement or monitor them. When one gup rotated management to another, no files or documents were given, indicating that no records were kept.
	Block government, UN	No rules or policies- Not only were there no rules established at the hot springs, but a fee was not assessed on hot spring visitors. As a result, the community was unable to maintain the facility and had no to be involved with the hot springs. With no fence, it was also difficult to deny entry to the site.
	UN, local governments	No community leadership- While the gups were supposed to rotate management of the hot springs, this was not done very well and no real leader emerged in the process. The management of the hot springs was handed back to the dzongkhag after only two years.

Question 11: What were the lessons learned from the former UN-funded ecotourism project?

According to participants I interviewed, there are a number of lessons learned from the UN-funded ecotourism project at Gasa hot springs. It was clear that despite community interest to manage the hot springs, there was not enough capacity among them to manage the project successfully. Partnerships and coordination are seen as key to the success of the future project both in terms of building capacity and improving coordination and organization. The UN representative also said there needs to be leadership on the part of community members to make this project a success.

The future success of this ecotourism project is also dependent on organization. Needed are community coordination, management, and implementation of guidelines and policies. The community members that made up the Gasa Ecotourism Association (GEA) were from four different geographically dispersed *geogs* (block governments within a district). (See Appendix E.) Given that the walk from Lunana (one *geog*) to Gasa takes 12 days, and internet and phones are unavailable, it is not reasonable to expect much engagement from communities living there. In fact, the GEA only met to discuss issues and concerns with the project once or twice a year. Therefore, those involved in the project should only be those that can commit to be engaged and involved with the project on a regular basis. The initial management of the hot springs was being rotated every year among all of the *gups* of the four blocks near Gasa: Goenkhatoe, Goenkhome, Lunana, and Lingzhi, but that is not seen as very efficient by the assistant *gup* of Goenkhatoe. Furthermore, when the Goenkhome *gup* handed management over to the Goenkhatoe *gup*, there were no files, documents, or guidance given. This did not help the organization of the project.

Guidelines and policies are also needed to give a clear understanding of how to manage the hot springs, any joint accounts, and if applicable, a community development fund. Rules also need to be established and enforced both at the hot springs and the proposed adjoining campsite. At the hot springs, nationals refused to pay fees and given that there was no fence around the hot springs and no real entrance, this was hard to enforce. Additionally, many visitors are Bhutanese teenagers who are not respectful of the baths. Rules need to be enforced by a security guard to keep the facility in good shape. Finally, there are proposals to adjoin a campsite to the baths. At the previous campsite, many campers (mainly nationals) were cutting down trees for wood and making fires, which is against park policies. It was suggested that a security guard be in charge of enforcing these rules and that community members can sell a fixed amount of wood under supervision by park staff or rent gas stoves to campers.

The representatives of TCB and ABTO stressed that community members often need to lower their expectations and be made aware that tourism will not provide them a full annual income. Instead, they should continue their current livelihood activities with tourism providing supplemental income. This is because there is not a critical mass of tourists in Bhutan due to the tourism policy and also because the monsoon season in the summer limits tourists to other times of the year. In effect, this probably works out because most harvesting is done near the summer time in the park.

Finally, TCB and ABTO representatives believe that the success of the project depends on following an entrepreneurial model rather than a community-based model. In their opinion, community-development funds and community-management is difficult. They believe the best way to improve the project is to link successful (“well-off”) entrepreneurs in the park to interest free loans. Then these people can set up campsites, guesthouses, or manage the hot springs and provide an example to others. It is important to note that these representatives also do not like the term, ‘eco-tourism’ and prefer ‘nature-based’ or ‘sustainable tourism’, which consequently do not have a focus on community-based approaches. (See Table 11.)

Table 11: Summary of Responses to Question 11

Question 11: What were the lessons learned from the former UN-funded ecotourism project?	
Participant(s)	Views and comments
Park staff, UN, local governments, ABTO, TCB	Capacity building and partnership - Oversight and monitoring by local governments and park staff is essential. Park/NCD can help formulate policies. The UN suggests consultation with ABTO and TCB for guidance and funding of the project. ABTO suggests stakeholders help the community to establish guidelines. TCB suggests partnership with NGOs.
Local governments, UN	Improve coordination - Among <i>community</i> : The Gasa Ecotourism Association was made up of community members from as far away as 12 days walk. The group was too dispersed and only got together one or two times a year. Additionally, the management of the hot springs was shared among four gups on a one-year rotational basis. It would be better to engage community members closer to the hot springs and to better coordinate management oversight over the project. <i>Between community and stakeholders</i> : Community members had very little capacity and need commitments from and collaboration with local governments, park staff, ABTO, and NCD. I discovered that NCD, the block, and county governments (with community) all planned to revamp the hot springs project and were relatively unaware of one another’s plans.
Block government, UN	Establish policies and enforce them - There needs to be general policies and rules that the community organization follows in the management of the hot springs. There should also be rules in place at the hot springs that are enforced. These rules would include paying the fee, respecting the property, etc. Given plans to establish a campsite nearby, it is also essential that rules against cutting wood for fires be in place. One person would likely be needed for security to enforce these rules.
Block government	Fee structure - A fee structure is needed at the hot springs to charge both nationals and tourists for entrance and use of the hot springs. About 20 NU for nationals (ie.e.\$0.45) and \$15 for foreigners was suggested.
Block government	Improvement at baths - Some interviewees believes separate baths should be made for tourists and nationals to reflect the different entrance fees. Also ti appears that many of the nationals are rowdy teenagers, which interfere with foreign tourists’ desire to relax. Also, the assistant gup suggested that on the national’s side, separate baths be available for women and men. A first-aid kit is also necessary on site. Finally, there is a need to determine the carrying capacity of the newly developed baths as they were sometimes overcrowded.
Block government, UN	Better organization – No records or documents were kept for the previous project, so it is unclear how many visitors there were, how money was used, and how management responsibilities were shared. The UN suggests the need for Chair, Treasurer, and Secretary. The interviewee believes the chair could be a gup and others can be villagers.
Block government	Media campaign - There needs to be a campaign to market the hot springs, both to encourage more visitors and to raise awareness and understanding of the rules, including that the baths will require an entrance fee.

TCB, ABTO	Enterprise model – Interviewees believe that a community-based or social approach is not generally successful and the project would be better off using an enterprise model. If interest free loans can be given to ‘well-off’ entrepreneurs, they can lead the way and set the example for others.
TCB	Develop shared understanding – Community members should be aware that ecotourism should not hamper their normal lifestyle and that ecotourism will not provide a full income but rather a supplementary income, given the low numbers and seasonality of tourists in Bhutan. This can be done with rural education.

Question 12: What should be various roles and responsibilities of stakeholders?

When participants were asked what the various roles and responsibilities of stakeholders should be, the park staff suggested that they provide policy and management oversight. This is in line with what the block government suggested. However, additional suggestions for the park and NCD include helping to find funding and developing the committee. The district government expressed willingness to submit grant proposals for funding and to help monitor facilities and maintain nearby trails. The UN representative suggested that ABTO and TCB be heavily involved in developing the project from building capacity, providing oversight, and providing or finding the funding to build infrastructure, etc. (See Table 12.)

Table 12: Summary of Responses to Question 12

Question 12: What should be various roles and responsibilities of stakeholders?	
Participant(s)	Views and comments
Park Manager, staff	The park can provide policy and management oversight
UN	In terms of the joint account, the chair should be a gup, and the secretary and treasurer should be villagers.
UN	ABTO and TCB should help with capacity building, oversight, and finding the funds to build infrastructure.
District government	The dzongkhag can monitor the facilities, plan expansion of the project, submit proposals for funding, and help maintain nearby trails.
Block government	The park/NCD should help guide policies, help form committees, and find funding. Community should take full interest in managing the hot springs.

3.2. Surveys

3.2.1. Tourist Survey

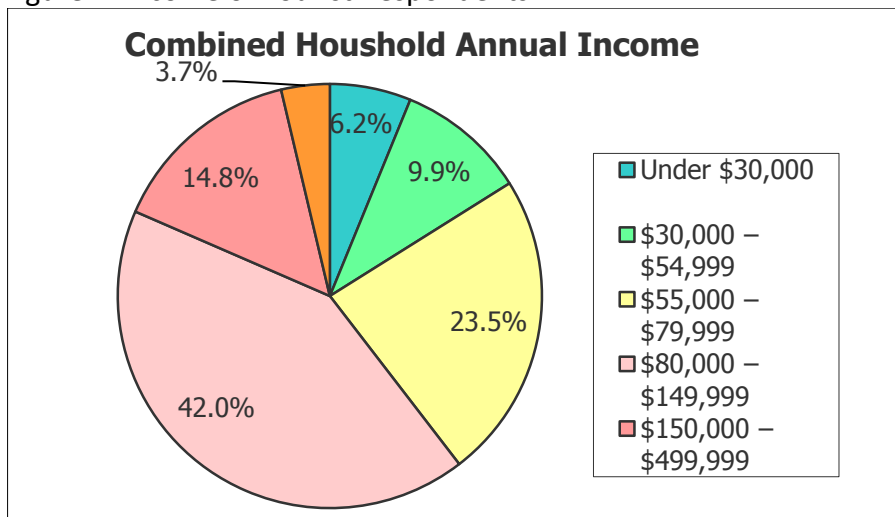
Demographics:

Fifty-five percent of respondents were female and 45% were male. Over 50% of respondents were over the age of 56 at the time of the survey. (See Table 13.) When respondents were asked their combined household income in US dollars, the top response (42%) was in the \$80,000 to \$150,000 range. (See Figure 1.)

Table 13: Age of Tourist Respondents

Age range	Response Percent	Response Count
18 – 25	0.0%	0
26 – 35	15.9%	14
36 – 45	14.8%	13
46 – 55	13.6%	12
56 – 65	29.5%	26
65 +	26.1%	23
answered question		88
skipped question		1

Figure 1: Income of Tourist Respondents



Regarding the nationality of respondents, 55% of respondents were American, 12% were British, 5% were Dutch, 4% were Irish and Singaporean, 2% Scottish, 1% Italian, and 1% Canadian. These results do not include those of dual citizenship, including 2 Australian-Americans, 1 Irish-American, 1 Mexican-American, 1 Canadian-American, and 1 Canadian-Australian.

Questions about the tour operator

I asked tourists which tour operator they went through and what type of tourism the company advertised. While two respondents were guests of the government and four could not remember their tour group, nearly half of the remaining 77 respondents traveled to Bhutan with two tour operators. The other responses were fairly spread out among 26 other tour operators. Forty percent of respondents said their tour operator advertised nature-based tourism, 31% said the tour operator advertised ecotourism, 23% said their tour operator advertised sustainable tourism, and 23% of respondents said that their tour company did not advertise or emphasize a particular form of tourism.

Activities

Survey participants were asked to indicate which of 26 activities they participated in during their trip to Bhutan. The top three activities that respondents participated in were visits to Buddhist sites (95%), hiking (86%), and viewing cultural performances (75%). The activities least participated in were rock or ice climbing (0%), medicinal plant tours (3%), and bicycling (4%). Thirty-eight percent of respondents said they participated in ecotourism activities during their trip and 10% visited hot springs. (See Table 14.) When posed the question which activities they would have liked to participate in, less than 30% of participants responded to the question, though the top responses were seeing a festival, more trekking, and travel to remote areas. (See Table 15.) When participants were asked to rank their favorite activities, hiking was first and third place and 'visits to Buddhist sites' was ranked second. With all selections summarized, the highest response was visits to Buddhist sites, followed by hiking, and visits to communities. (See Tables 16 and 17.)

When I asked participants their least favorite activities, 56% of participants skipped the question, but of the remaining responses, another 56% said they had no least favorite activities. Of the selected options, shopping, trips to visitor centers, and plant tours were the least favorite activities.

Table 14: Activities of Tourist Respondents

Answer Options	Response Percent	Response Count
Visits to Buddhist sites	95.0%	76
Hiking	86.3%	69
Cultural performances	75.0%	60
Museum	68.8%	55
Shopping	66.3%	53
Wildlife viewing	57.5%	46
Camping	56.3%	45
Guided tour by local (in rural area)	55.0%	44
Festival	55.0%	44
Visitor center	45.0%	36
Bird watching	42.5%	34
Ecotourism	37.5%	30
Stone baths	32.5%	26
National Institute for Traditional Medicine	22.5%	18
Spiritual education	22.5%	18
Rafting	22.5%	18
Research	11.3%	9
Hot springs	10.0%	8
Spa (massage, etc)	8.8%	7
Horseback riding	6.3%	5
Volunteering	5.0%	4
Mushroom picking	3.8%	3
Bicycling	3.8%	3
Medicinal plant tour	2.5%	2
Rock or ice climbing	0.0%	0
Other	21.3%	17
answered question		80
skipped question		9

Table 15: Activities Tourists Wish They Had Participated In

Activities	Response Percent	Response Count
Festival	19%	6
Trekking (higher, longer, etc)	16%	5
Travel to remote areas	13%	4
Kayaking/rafting	13%	4
Botany tour	6%	2
Volunteer	6%	2
Wildlife	6%	2
Birding	3%	1
Cooking	3%	1
Horseback riding	3%	1
Hot springs	3%	1
Medicinal plant tour	3%	1
National Institute for Traditional Medicine	3%	1
Spiritual education/Meditation	3%	1
answered question		32
skipped question		55

Table 16: Ranking of Tourists' Favorite Activities

Answer Options		Response Percent
1st	Hiking	26%
2nd	Visits to Buddhist sites	26%
3rd	Hiking	19%
answered question		80
skipped question		9

Value of Trip

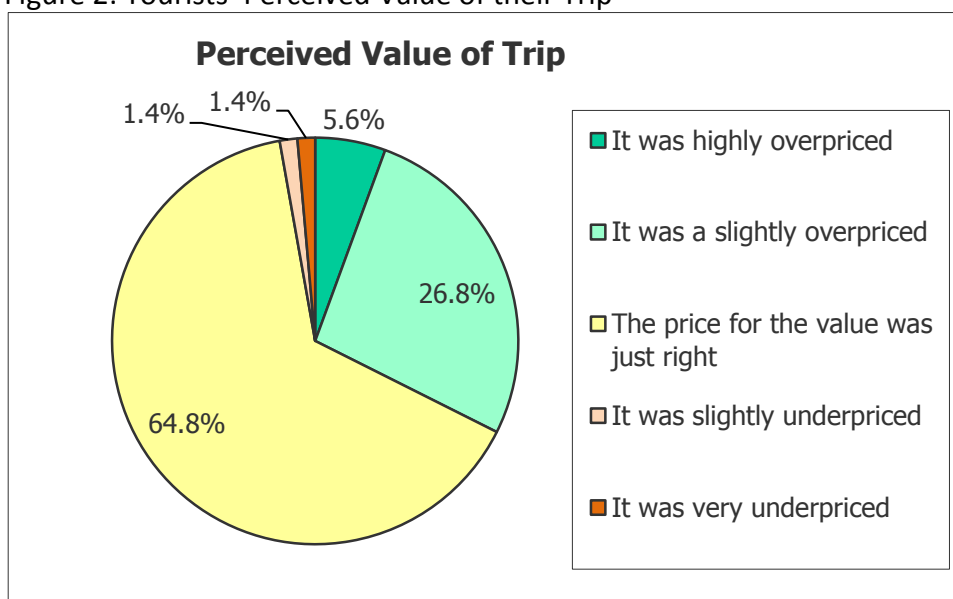
When respondents were asked to form an opinion on the amount of money they paid to go to Bhutan, 65% believe the price for the value was just right. About 32% believed their trip was overpriced and only 3% believed it was underpriced. (See Figure 2.) Of 32 general comments provided, 9 respondents expressed their desire to keep Bhutan 'pristine' in terms of the environment and culture. Five respondents stated concerns about the price of the tariff or that extra charges outside of the tariff were problematic. The other comments were generally positive remarks about the trip.

Table 17: Summary of Tourists' Selected Favorite Activities

Answer Options	Response Percent
Visits to Buddhist sites	22.1%
Hiking	19.8%
Visits to communities	16.6%
Cultural performances	12.4%
Camping	7.4%
Bird watching	6.0%
Wildlife tour	4.6%
Other*	2.8%
Plant tour	2.3%
Rafting	2.3%
Bicycling	1.4%
Shopping	0.9%
Ecotourism	0.5%
Visitor center	0.5%
Volunteering	0.5%
answered question	80
skipped question	9

* When asked to specify in open-ended question, 56% said spending time with locals

Figure 2: Tourists' Perceived Value of their Trip



Protected areas

When tourists were asked whether they visited a protected area on their trip, 61% of respondents said yes, 27% said no, and 12% were unsure. Of the respondents that did visit a protected area, the average length of their stay in this area was 1 to 25 days. Of all respondents, the most common length of time in Bhutan was 11-14 days. (See Figure 3.) Of those who did not visit any protected areas, the most selected explanation for not visiting was 'limited time' (73%), followed by 'the tour operator chose the itinerary' (32%).

Of the 41 participants who responded, the most visited protected area (among seven) was Jigme Dorji National Park (73% of respondents), followed by Jigme Sinye Wangchuck National Park (41%), and Thrumshingla National Park (22%). (See Figure 4.) In those three parks, Jigme Dorji National Park appeared to offer the most of the activities available. To see a list of participated activities by the three most visited parks, please see Figure 5.

Figure 3: Tourists' Length of Trip to Bhutan

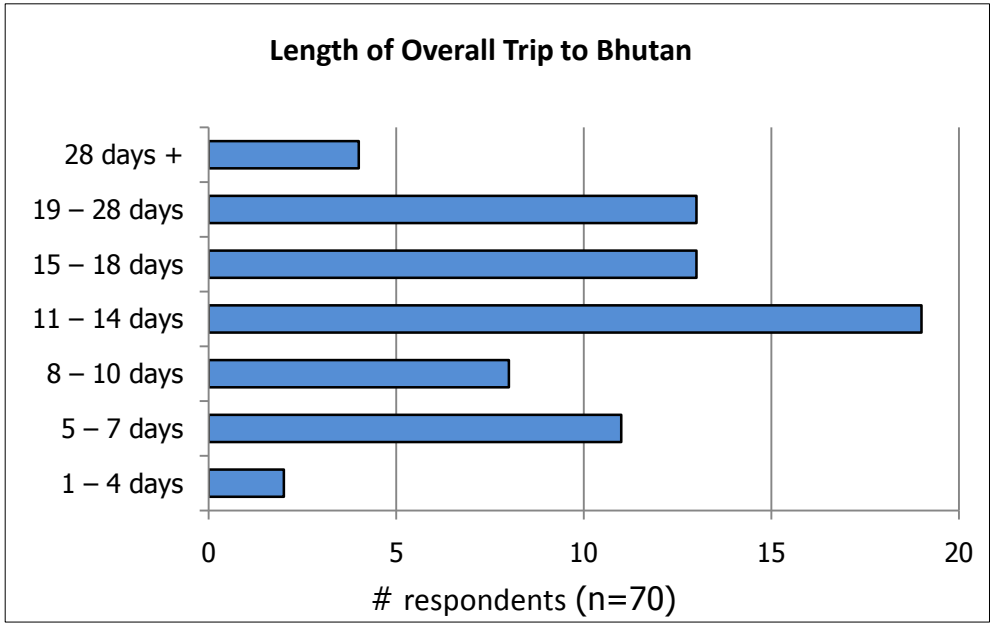
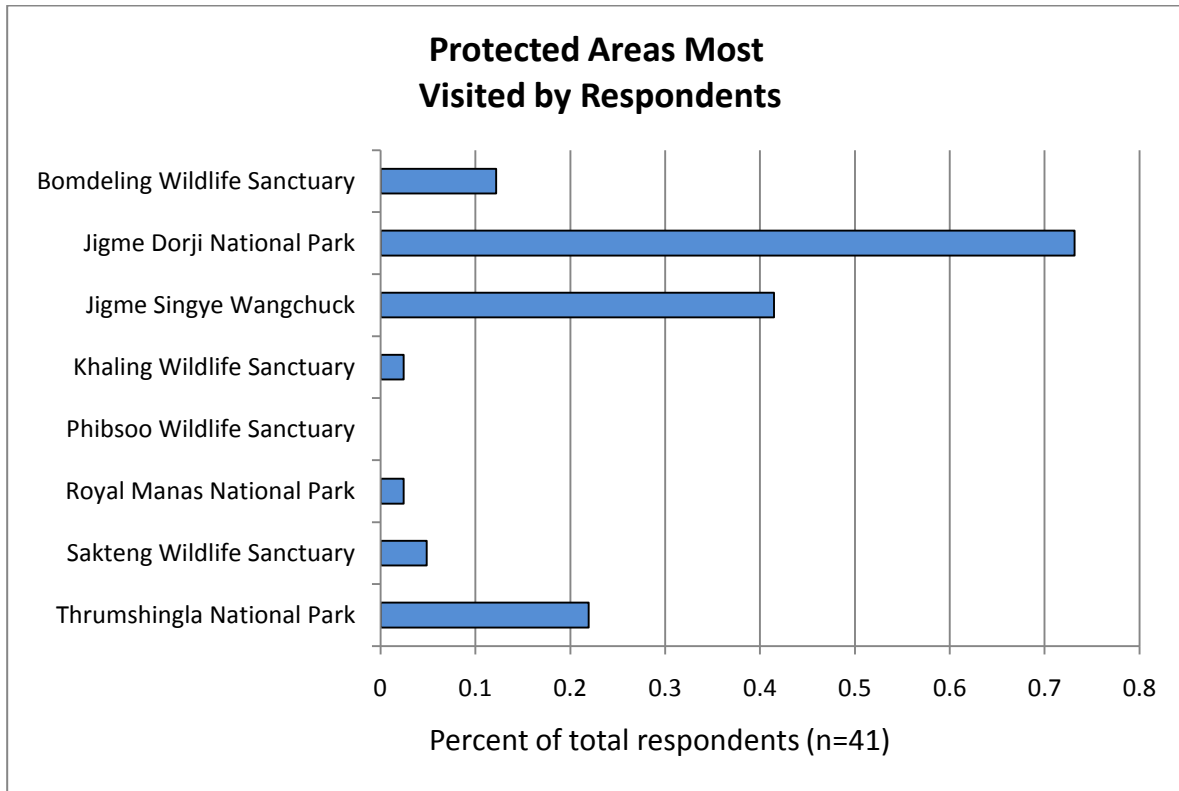
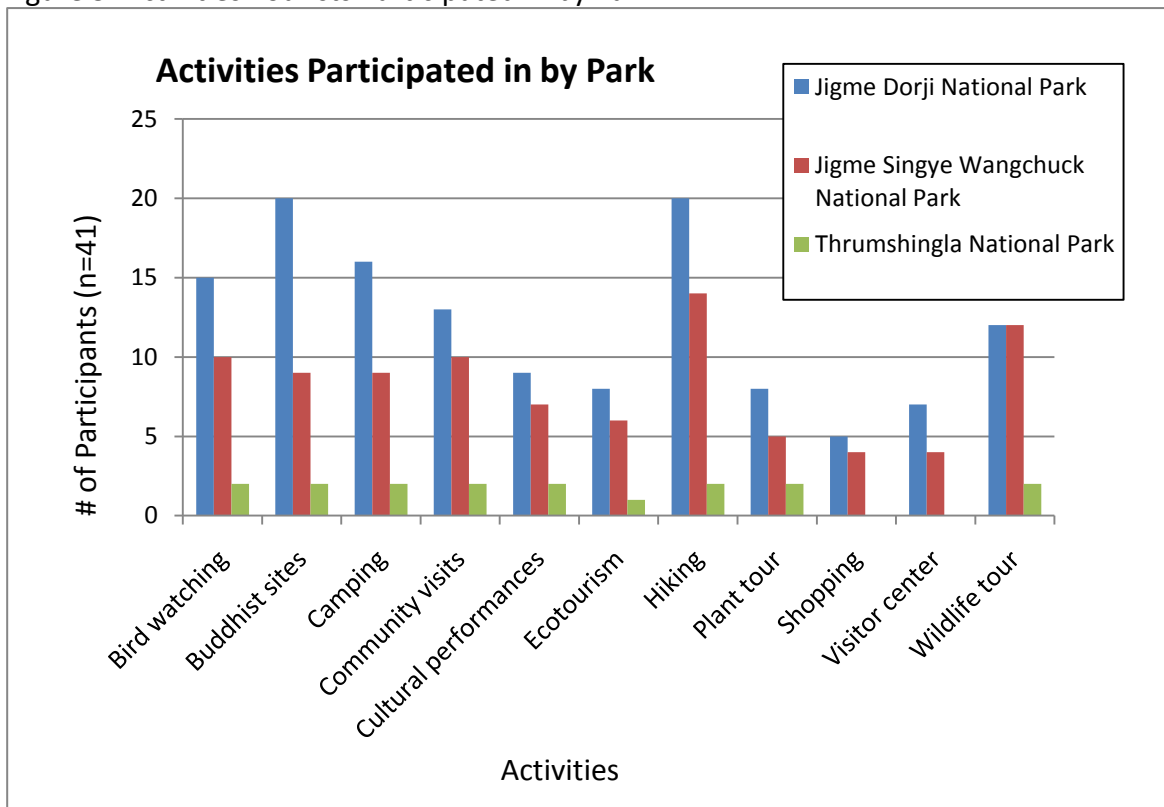


Figure 4: Protected Areas Most Visited by Tourists



Note: I discovered through the use of the survey that the Phibsoo Wildlife Sanctuary is a strict wildlife sanctuary and no visitors are permitted to enter.

Figure 5: Activities Tourists Participated in by Park



Tourists were asked how much they would be willing to pay for an entrance fee at Jigme Dorji National Park, given the choices of \$5, \$10, \$25, \$50, and other. Thirty-four percent of the 68 respondents (the highest response) selected \$25. The next biggest response was \$10 (28%), followed by 'Other' (21%). The choice of \$5 made up 9% of responses and \$50 made up 7% of responses. When participants were asked to explain 'Other,' seven stated that their willingness to pay depended on the attractions available, with one person saying he/she would be willing to pay up to \$500 if it meant the possibility of seeing a snow leopard. Three respondents said that they were not willing to pay anything since the daily tourist tariff was already very high.

Hot springs

Tourists were asked to imagine getting the opportunity to enter and use hot springs. They were asked to select the most important factors in determining their decision to pay for the hot springs. They were given 11 options including an 'other' category that required explanation. Nine percent of respondents stated they would not be interested. The highest response was 'cleanliness' (79% of 68 respondents), followed by 'price of entrance fee' (54%), and 'privacy offered' (47%). Of four people who chose 'other,' three indicated that they would want the hot springs to be authentic and natural—not overly developed. To view the responses, see Table 18.

Participants were then asked how much they would be willing to pay as an entrance fee for their personal enjoyment of the Gasa hot springs. Of 68 respondents, the most selected response was \$10 (44%), followed by \$25 (19%). (See Figure 6.) When given the choice of 'other,' two respondents said they were not sure and three respondents felt there should not be a fee (considering the high tariff they pay), though one suggested the concession of drinks and food as a way to maintain the facilities. Next, tourists were asked if their willingness to pay for the Gasa hot springs would be different now considering that the fee will provide some supplemental income to the community inhabiting the park. Of 67 respondents, 43 (66%) said yes and 23 (34%) said no. Of those participants that said yes, they were asked how much more they would be willing to pay in US dollars. The biggest responses were \$5 and \$10 (31% each), followed by \$20 (27%). (See Figure 7.)

Table 18: Tourists Most Important Criteria for Hot Springs

Answer Options	Response Percent	Response Count
Cleanliness of tubs	79.4%	54
Price of entrance fee	54.4%	37
Privacy offered	47.1%	32
Décor and landscaping	33.8%	23
Variety of bath temperatures	29.4%	20
Spa (massage) available	16.2%	11
Separate baths for families/children and adults	11.8%	8
I would not be interested in the hot springs.	8.8%	6
Other	5.9%	4
Separate baths for tourists and nationals	1.5%	1
Handicap access	0.0%	0
answered question		68
skipped question		21

Figure 6: Tourists' Willingness to Pay for Gasa Hot Springs Entrance Fee

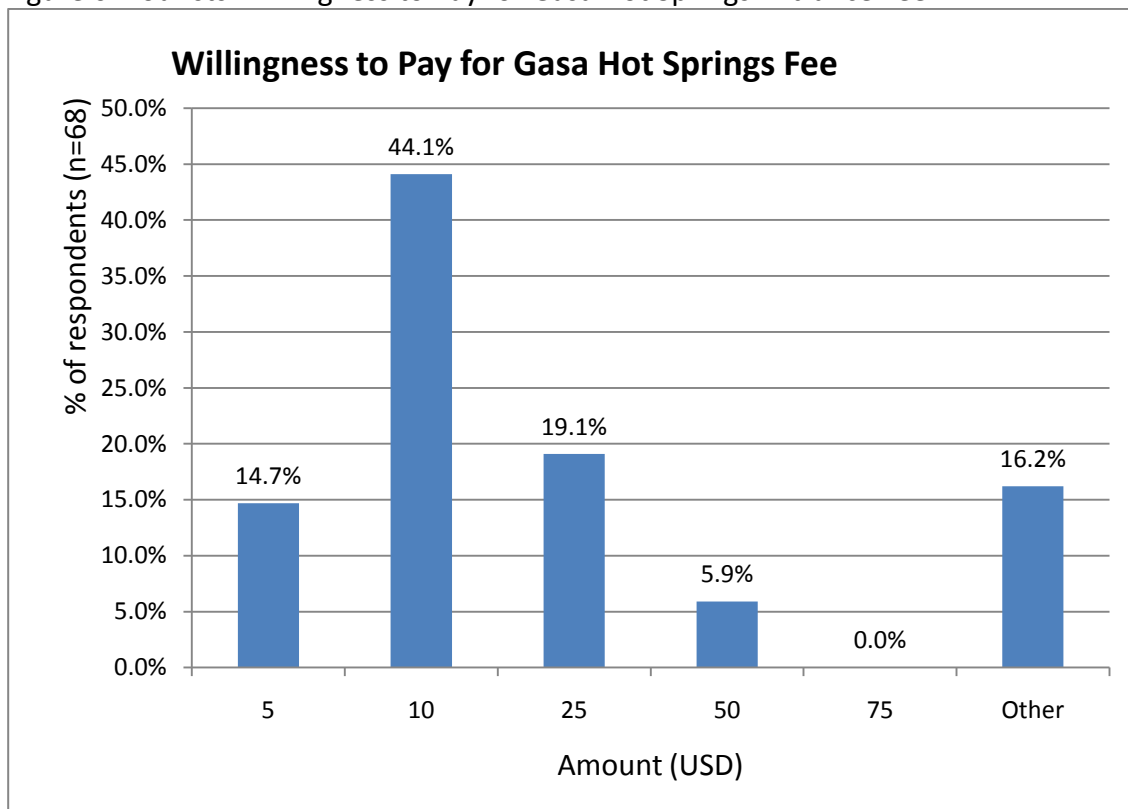
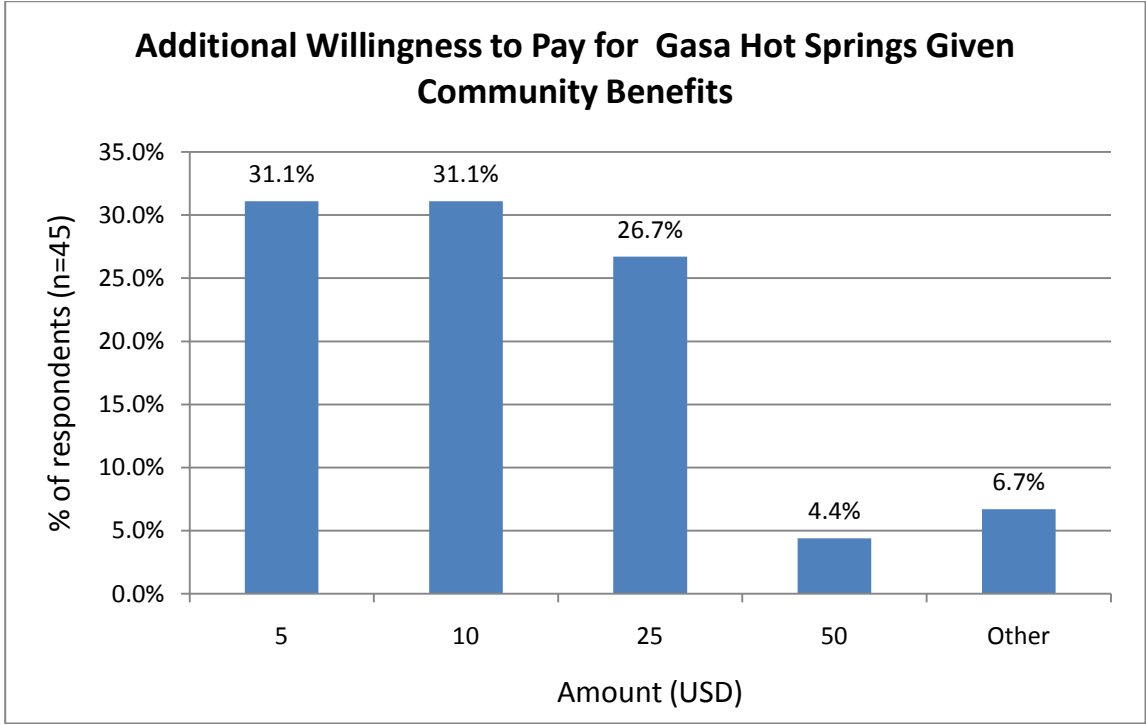


Figure 7: Tourists' Additional Willingness to Pay for Gasa Hot Springs Fee Given Community Benefits

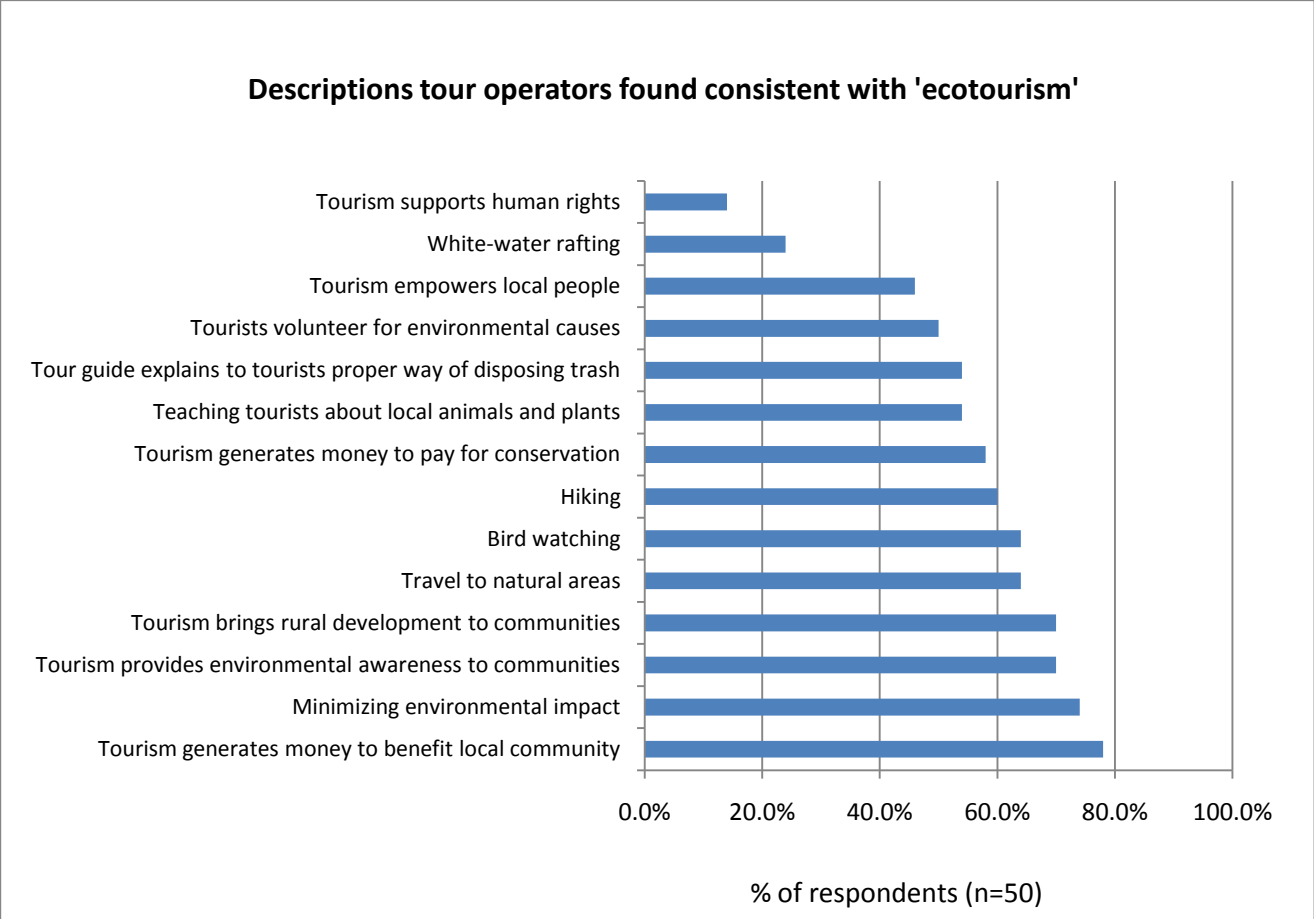


3.1.1 Tour Operator Survey

About the tour company

The 63 tour operator representatives that responded to my survey came from 57 different tour companies. Their companies were anywhere from 15 years old to brand new. When asked how many tourists were served in 2009, the responses ranged from 0 to over 800 people. Sixty-seven percent of the tour operators said they offered ‘ecotourism.’ When asked to select a number of statements consistent with their understanding of ecotourism, the top responses were ‘tourism generates money to benefit local community’ (78%), ‘minimizing environmental impact’ (74%), tourism provides awareness to environmental communities (70%), and ‘tourism brings rural development to communities.’ Surprisingly, options like ‘travel to natural areas’, ‘tourism generates money to pay for conservation’, or ‘tour operator explains to tourists proper ways of disposing trash’ were much lower on the list. (Please see Figure 8.)

Figure 8: Tour Operator Respondents' Understanding of Ecotourism



Activities and Protected areas

When tour operators were asked to which parks they have brought tourists, the most frequent response was Jigme Dorji National Park (74%), followed by Thrumshingla (48%), and Jigme Singye Wangchuck (38%). Six percent of tour operators do not visit protected areas and 24% offer the opportunity but have not visited protected areas yet. (See Figure 9.) When tour operators were asked to check listed activities in each protected area that were available to tourists on their tours, the most selected activities in Jigme Dorji National Park were 'bird watching' (34 responses), hiking (33), and camping (29). (See Table 19.) Jigme Dorji was selected above the other two most visited parks (Jigme Singye Wangchuck and Thrumshingla) for bird watching, wildlife tours, plant tours, ecotourism, community visits, camping, hiking, and rafting. They ranked below or the same for Buddhist sites, shopping, cultural performances, bicycling, and visitor center visits. (See Figure 10.) Tour operators were asked what cultural performances tourists most enjoy in an open-ended question. The highest response (72%) was dances (n=43), followed by singing (21%), and archery/games (7%).

When tour operators were asked to select the best tourist attractions in Jigme Dorji National Park, the trekking routes were the highest selected (86% of 43 respondents), followed by Indigenous communities (76%), bird watching (67%), and the Gasa hot springs (65%). The least selected were the visitor center, horseback riding, and ‘other,’ which was specified as caterpillar fungus. (See Table 20.)

When tour operator participants were asked their opinion of the highest amount that a majority of tourists would be willing to pay as a park entrance fee, the highest response (35%) was 200 NU (about \$4). (See Figure 11.)

Figure 9: Protected Areas Tour Operators Visit

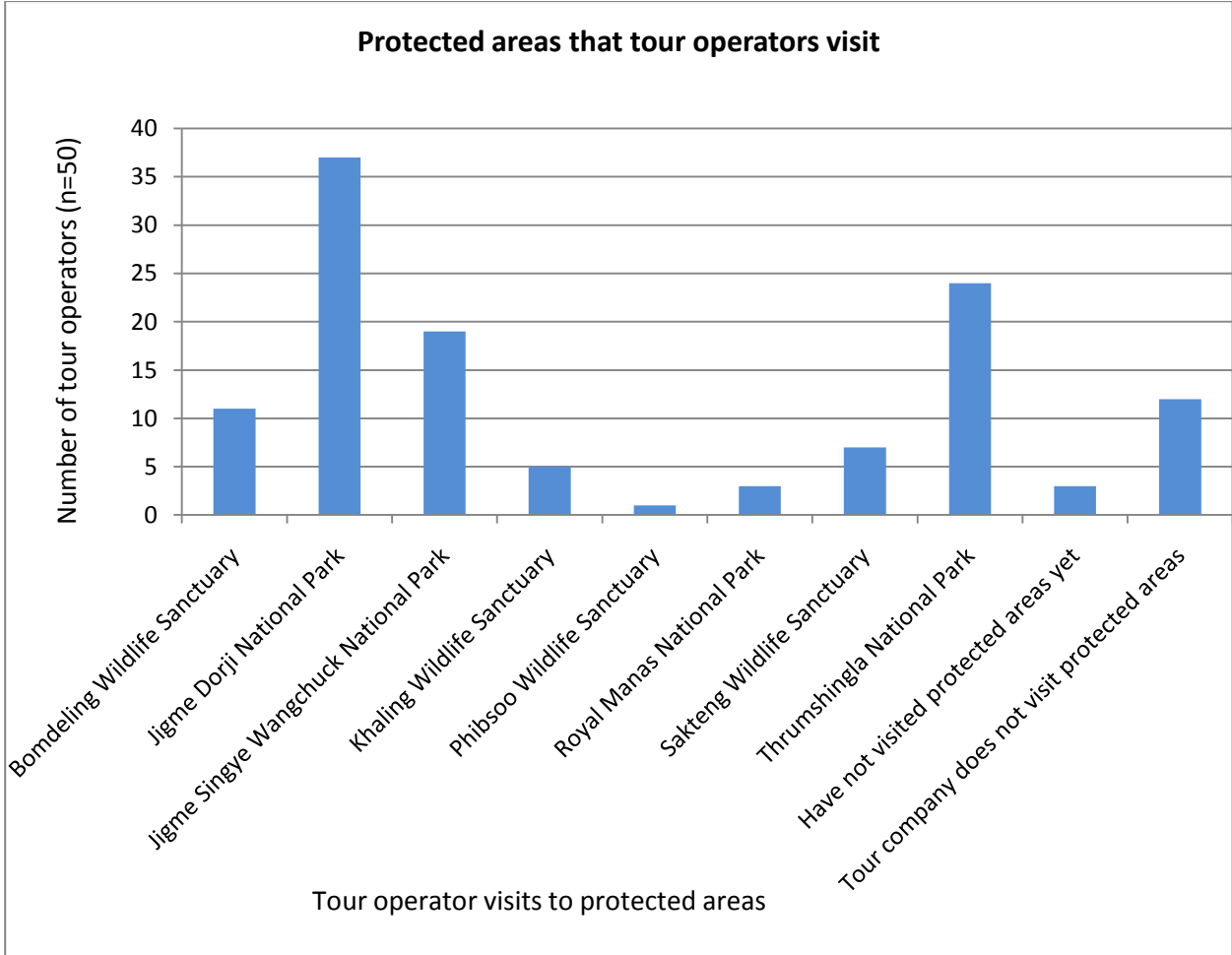


Table 19: What Activities Tour Operators Believe is Available in JDNP

Activity	Rank	Response Count
Bird Watching	1	34
Hiking	2	33
Camping	3	29
Ecotourism	4	27
Plant tour	5	26
Wildlife tour	6	22
Community visits	7	17
Buddhist Sites	8	11
Cultural Performances	9	10
Bicycling	10	8
Visitor center	11	6
Volunteering	12	5
Rafting	13	4
Shopping	14	3
answered question		50
skipped question		13

Figure 10: Comparison of Activities by Park According to Tour Operators

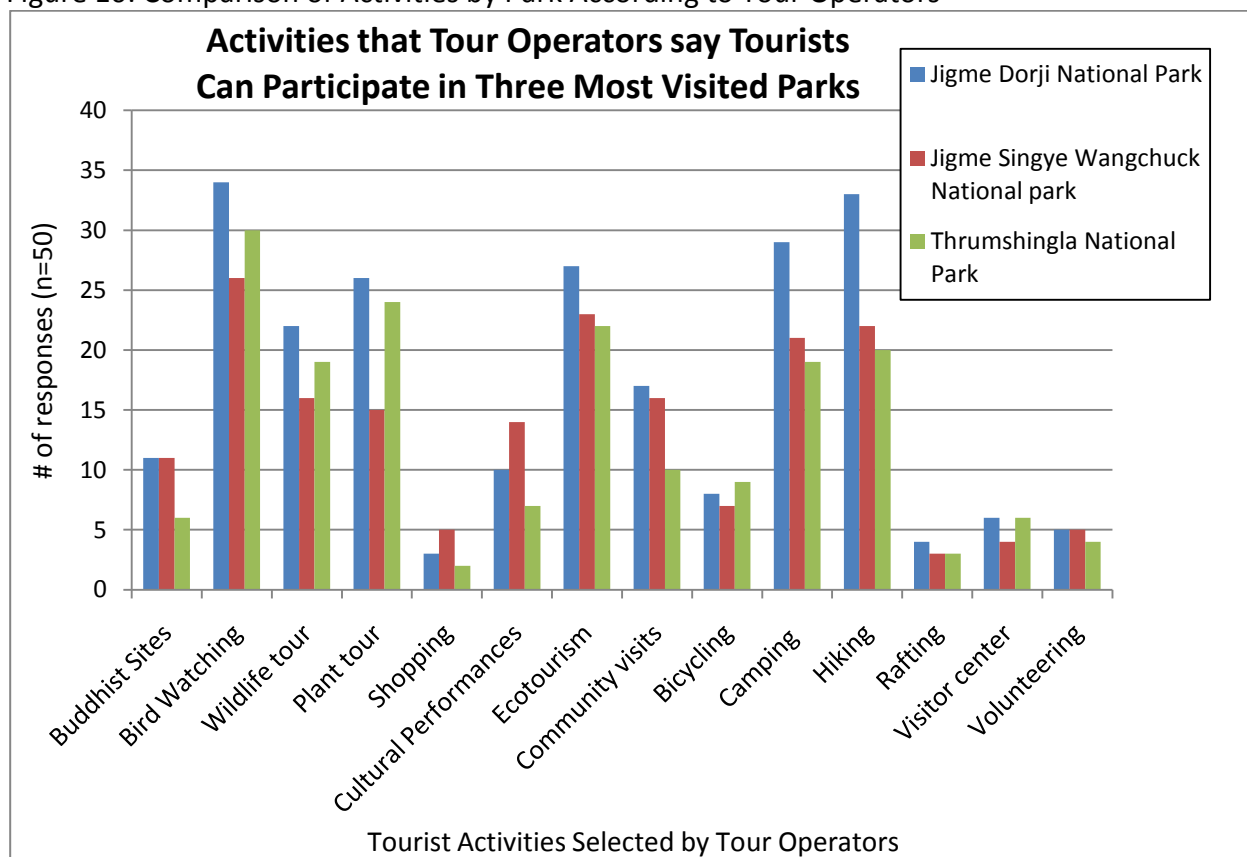
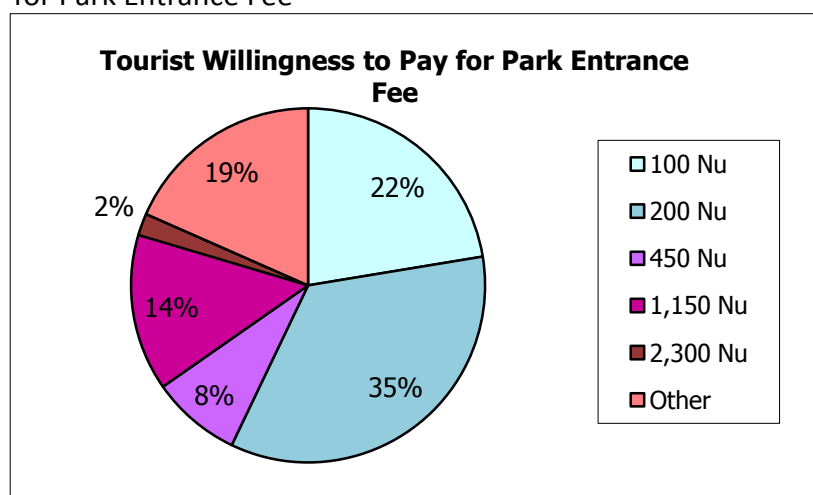


Table 20: Tour Operator’s Opinion of Best Tourist Attractions in JDNP

Answer Options	Response Percent	Response Count
Trekking routes (Snowman trek, Jomolhari, etc)	86.0%	37
Indigenous communities (Layap, Lunaps, etc)	76.7%	33
Bird watching	67.4%	29
Gasa hot springs	65.1%	28
Medicinal plants tourism	41.9%	18
Cultural performances (visits to a community)	30.2%	13
Volunteering (schools and communities)	30.2%	13
White water rafting on Phochu and Mochu rivers	27.9%	12
Religious sites (Visit to Gasa monastery, etc)	25.6%	11
Mushroom picking	18.6%	8
JDNP visitor center and park headquarters	16.3%	7
Horseback riding	14.0%	6
I am not familiar with Jigme Dorji National Park	4.7%	2
Other: Caterpillar Fungus	2.3%	1
answered question		43
skipped question		20

Figure 11: Tour Operator’s Opinion of What Tourists Would Pay for Park Entrance Fee



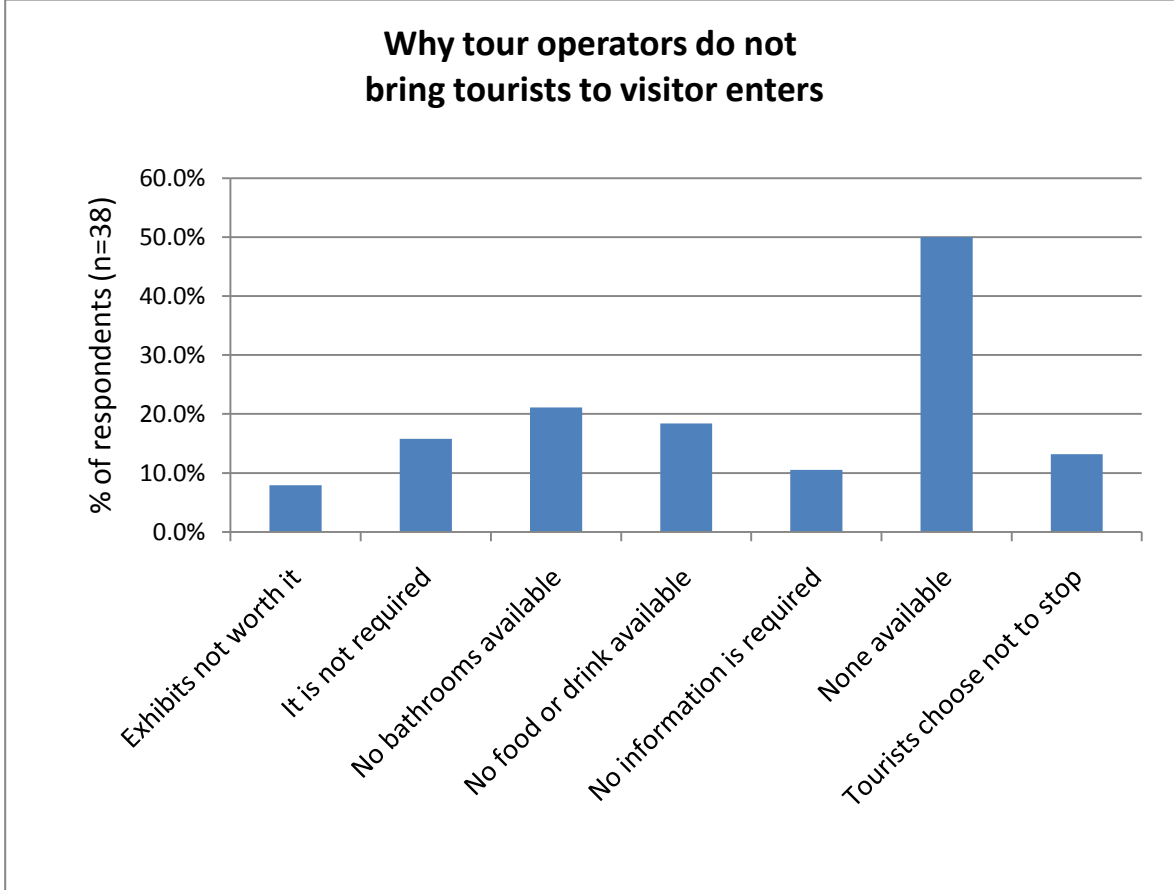
Tour operators were also asked how frequently they stop at visitor centers when bringing tourists to protected areas. Six percent (n=49) said this was not applicable, presumably because there are no visitor centers where they go or they do not visit protected areas. Almost 39% of tour operators selected ‘sometimes’ and 22% chose ‘sometimes’ and ‘always.’ Only 2% chose never and 8% chose rarely. The main reason selected for bringing tourists to visitor centers was ‘to get information (69%), followed by ‘for tourists to see educational exhibits’ (63%). Only 8% said they do not go to visitor centers. (See Table 21.) The main reason cited by tour operators for not bringing tourists to visitor centers is that none are available (50%), followed by the fact that no bathrooms are available at the visitor centers

(21%), and no food or drink is available for purchase (18%). (See Figure 12.) Three of six comments received for this question alluded to the fact that the visitor centers are not worth visiting and seen as a waste of time for the guest due to lack of resources available at the center.

Table 21: Tour Operators’ Reasons for Bringing Tourists to Visitor Centers

Answer Options	Response Percent	Response Count
To get information	69.40%	34
For tourists to see educational exhibits	63.30%	31
Bathroom stop	42.90%	21
Must stop for administrative reasons (pay fee, give paperwork, etc)	32.70%	16
Possibility to buy food and drinks	16.30%	8
I do not stop at visitor centers	8.20%	4
Other	8.20%	4
	<i>answered question</i>	49
	<i>skipped question</i>	14

Figure 12: Tour Operators’ Reasons for Not Bringing Tourists to Visitor Centers



Benefitting local communities

Of 46 respondents, 98% said that their tour companies do trekking or camping trips over a course of a few days. Then respondents were asked how often they hired local story tellers, guides, dance performers, cooks, and porters for their trips. Story tellers were the least hired, while porters were the most hired. For full results, please see Table 22 and Figure 13.

When tour operators were asked what their biggest concerns (among 11 options) were in hiring porters, 15% (n=47) selected, 'I would have no concerns. The most selected concern was 'Not consistently available to work when needed' (36%), followed by 'difficult to contact'

I don't like tourism becoming the sole source of income for a local person. While we would argue that tourism activity could be a supplementary activity I worry that because it is easier than farm work and more lucrative, people's expectation is raised and I feel the volume of our tourism activity is too small besides being too seasonal for someone to be dependent on tourism activity.

-Tour operator responding about concerns hiring local cooks

(34%). 'Lazy or bad work ethic' and 'picking up and delivering on time' were least selected concerns (8.5% for both). (See Table 23). Eight respondents left additional information; three said that they do not hire people but rather animals to carry gear. One commented that they prefer hiring porters over animals to transport goods since porters have less environmental impact since horses 'tear down' the trail.

When tour operators were asked their biggest concerns in hiring local cooks, 13% selected that they 'had no concerns' (n=47). The most selected response (51%) chose 'bad hygiene and sanitary practices,' followed by 'not familiar with western cuisines and dietary needs' (49%). The least selected concerns were 'lazy or bad work ethic' (4%) and 'logistics' (6%). (See Table 24.) Some respondents provided comments such as, "no trained local cooks available currently" and another said that they just use trained cooks from the city that travel with them on the route because they are licensed, deliver what they want, and are more convenient. Another commented that there are currently not enough tourists to provide a consistent income for these locals, so even though it is easier or more lucrative than farming, their expectations might get raised too high. (See text box.) For the hiring of local guides in protected areas, 21% of respondents (n=47) selected that they 'have no concerns.' The biggest concern (38% of responses) was 'not enough expertise and knowledge relating to the tour' followed by 'inability to speak tourists' language (34%). The least concerning selections were 'theft' (0%) and 'lazy or bad work ethic' (2%). (See Table 25.)

As long as they have the local knowledge and the sense of responsibility to cater to the visitors' need, I would prefer using local guides in protected areas.

-Tour operator responding about concerns hiring local guides in protected areas

Table 22: Frequency Tour Operators Hire Local Community Members for Tours

	% of Total Responses					Response Count
	Never	Rarely	Sometimes	Often	Always	
Porters:	0.00	0.13	0.30	0.11	0.47	47
Cooks:	0.11	0.05	0.41	0.05	0.38	37
Dance performers:	0.07	0.05	0.56	0.14	0.19	43
Guides:	0.03	0.18	0.30	0.08	0.43	40
Story tellers:	0.32	0.22	0.32	0.05	0.08	37
answered question 47						
skipped question 16						

Figure 13: Frequency Tour Operators Hire Local Community Members for Tours

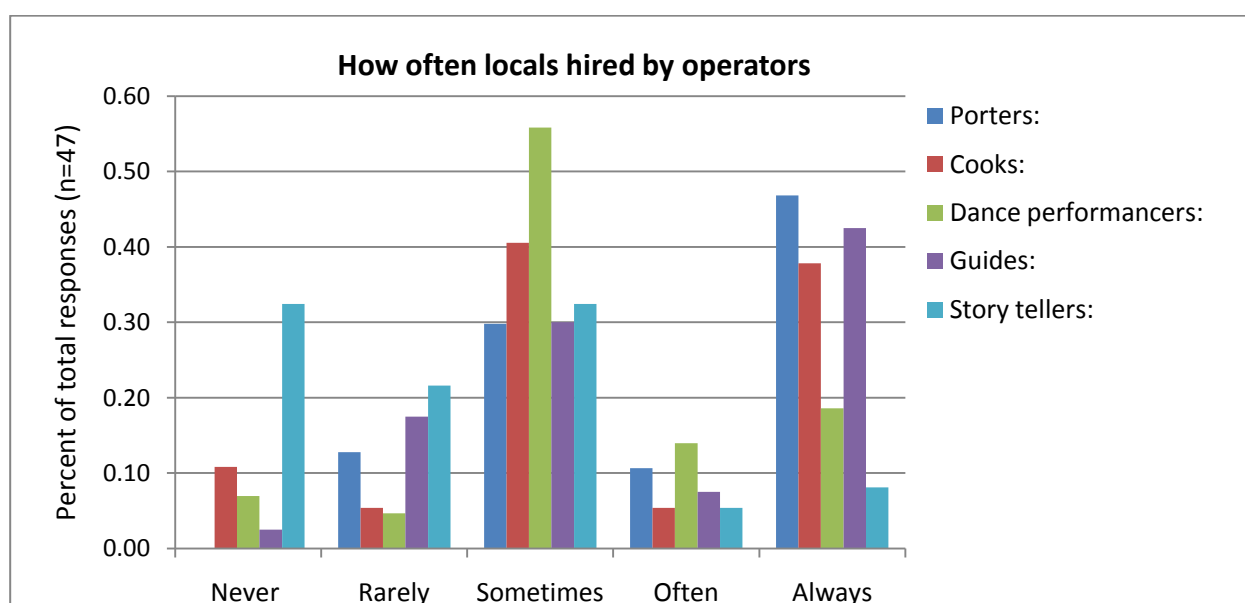


Table 23: Tour Operators' Concerns with Hiring Porters

Answer options	Response Percent	Response Count
Not consistently available to work	36%	17
Difficult to contact (phone, email)	34%	16
Inability to speak tourists' language	25%	12
Not sensitive to foreign needs	26%	12
Logistics	19%	9
Other	17%	8
I would have no concerns	14%	7
Theft	12%	6
Too expensive	11%	5
Lazy or bad work ethic	9%	4
Picking up and delivering on time	9%	4
Answered question		47
Skipped question		16

Table 24: Tour Operators' Concerns with Hiring Local Cooks

Answer options	Response Percent	Response Count
Bad hygiene and sanitary techniques	51%	24
Not familiar with western cuisine and dietary needs	49%	23
Difficult to contact (phone,email)	26%	12
Not consistently available to work	23%	11
Inability to speak tourists' language	21%	10
I would have no concerns	13%	6
Other	13%	6
Timeliness (arriving and preparing meals on time)	9%	4
Logistics	6%	3
Too expensive	6%	3
Lazy or bad work ethic	4%	2
Theft	2%	1
Answered question		47
Skipped question		16

Table 25: Tour Operators' Concerns with Hiring Local Guides

Answer options	Response Percent	Response Count
Not enough expertise/knowledge relating to the tour	38%	18
Inability to speak tourists' language	34%	16
Not familiar with tourists' culture and customs	26%	12
I would have no concerns	21%	10
Difficult to contact (phone,email)	19%	9
Logistics	17%	8
Not consistently available to work	17%	8
Timeliness (arriving and leading tours on time)	17%	8
Other	9%	4
Too expensive	6%	3
Lazy or bad work ethic	2%	1
Theft	0%	0
Answered question		47
Skipped question		16

Volunteering

Tour operators were also asked if tourists ever volunteer and if so, what types of activities do they like to participate in. Of 42 respondents, 15 (36%) stated that tourists rarely or never volunteer. The biggest sectors for volunteering include education and environment (8 responses each). (See Table 26.)

Table 26: Tour Operator's on Whether Tourists Volunteer

Volunteering	Responses
No/Not much	15
Education	8
Health	6
Pick up litter	5
Donations	4
General	
Environment	3
Agriculture	2
Renovation/building	2
Do not know	2
Total	47

Camping questions

Of 47 respondents, 89% of tour operators said that they bring tourists camping. When asked if they camp in official or designated camping areas, 89% selected yes (n=44), 9% selected 'sometimes,' and 2% said no. One respondent commented that there are no official camp sites in birding areas, which is 'embarrassing' because these are often in national parks and nothing is being done to provide campsites. Another said their tour company camps elsewhere if the campsites are too crowded or if there is a better spot nearby. When tour operators were asked what their minimal criteria would be to pay for a campsite, 9% said they did not worry about the criteria (n=44). The highest response was 'access to water' (82%), followed by 'access to clean toilets' (61%). (Please see Table 27.)

Table 27: Tour Operators' Criteria for Designated Campsites

Answer Options	Response Percent	Response Count
Access to water	82%	36
Access to clean toilets	61%	27
Flat land	55%	24
Access to a kitchen	43%	19
Place to make a fire	41%	18
A camping area surrounded by fence	16%	7
I do not worry about the criteria	9%	4
Other	9%	4
	Answered question	44
	Skipped question	19

Willingness to help communities

Tour operators were asked to imagine they were bringing tourists to villages or rural areas and to select in which ways they would be most willing to help community members in these villages earn money. Twelve percent (n=43) said they would not be interested to help. The most selected response (88%) was hiring locals to do cultural and dance performances, followed by 'having tourists stay in local guesthouses' (84%), and encouraging the purchase of handicrafts (77%). The least selected were hiring local cooks (26%) and hiring local guides (44%). (See Table 28.)

Table 28: Tour Operator’s Willingness to Help Rural Communities Earn Money

Answer Options	Response Percent	Response Count
Hire locals to do cultural and dance performances	88%	38
Have tourists stay in local guesthouses	84%	36
Pay a camping fee to support communities	79%	34
Encourage tourists to buy handicrafts made by community members	77%	33
Hire locals for porters	70%	30
Have tourists pay a park entrance fee	58%	25
Encourage tourists to volunteer in communities	44%	19
Hire locals for guides	44%	19
Hire locals as cooks	26%	11
My tour company would not be interested to help	12%	5
Other	2%	1
	answered question	43
	skipped question	20

Hot springs

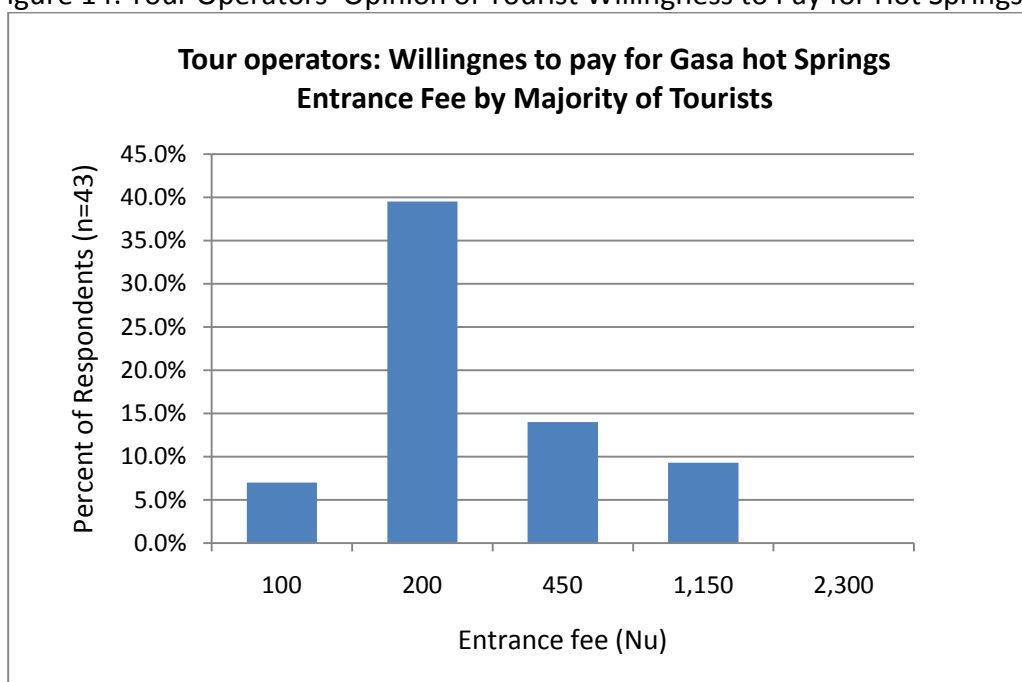
When tour operators were asked which hot springs they bring tourists to, the highest response (67% of 43 respondents) said they bring tourists to Gasa, 21% said they bring tourists to Dur in central Bhutan and 28% said they have not brought tourists to hot springs. Seventy-seven percent of tour operator respondents (n=43) have been to Gasa hot springs. When participants were asked to select the most important of 11 factors to determine whether or not they would bring tourists to the Gasa hot springs, 7% of respondents(n=43) opted out saying they were not familiar with the hot springs. The most important factor selected (65%) of responses was that the tourist makes a special request to go. The next highest responses are ‘cleanliness of the tubs’ (58%), followed by ‘separate baths for tourists and nationals’ (37%). The least selected response was price of the entrance fee (7%). (See Table 29.)

When participants were asked what they thought would be the highest entrance fee that a majority of tourists would be willing to pay, the highest response (40% of 43 respondents) was 200 NU (about \$4). The second highest response was ‘Other’ (30%) of which seven respondents said they do not know or depends and five said there should be no additional fees for tourists. (See Figure 14.)

Table 29: Tour Operators’ Most Important Criteria for Hot Springs

Answer Options	Response Percent	Response Count
Tourist makes a special request to go	65%	28
Cleanliness of tubs	58%	25
Separate baths for tourists and nationals	37%	16
Variety of bath temperatures	28%	12
Hotel accommodation nearby	23%	10
Privacy offered	21%	9
Décor and landscaping	21%	9
Separate baths for families/children and adults	14%	6
Handicap access	14%	6
Spa (massage) available	14%	6
Price of entrance fee	7%	3
I am not familiar with the Gasa hot springs	7%	3
answered question		43
skipped question		20

Figure 14: Tour Operators’ Opinion of Tourist Willingness to Pay for Hot Springs



Additional quotes from tour operators:

- “While such policies, plans are important to have in place and market the national parks, it is also very important to involve the relevant Ministries and organization of the Government, local communities of the particular region and the tourism stake holder at the very stage of developing the policies by the concerned Organizations.”
- “The government enjoys huge revenue from tourism in the form of taxes and royalties. It should invest back into the industry by supporting with more research, information and facilities which will help tour operators promote Bhutan.”

4. Findings

4.1. Prospects for Ecotourism in JDNP

4.1.1. Potential and Need

Community standpoint

Before Jigme Dorji National Park was established as a protected area, this northwestern corner of Bhutan was home to various Layap, Lunap and other established communities of people. There are over 6,000 people living within Jigme Dorji National Park (GEF profile) and their families have been living there for hundreds of years. According to one estimate, the population within the park is growing about 1.8% each year (RGoB n.d.). The government wants to maintain 60% forest cover in the park and protect the many rare and endangered species of wildlife, including the national takin (*Budorcas taxicolor*). While the people living in this region follow a form of Mahayana Buddhism, which discourages the taking of life (e.g. hunting), they have been known to poison or otherwise kill wildlife suspected of livestock depredation. Therefore, the government has partnered with World Wildlife Fund (WWF) to use a compensation fund to compensate farmers whose livestock have been proven to be depredated by snow leopards and tigers. This method, however, may not be sustainable or effective, given limited funds and the difficulty of proving depredation when livestock roam freely in the forests without fences.

Inhabitants of the park are required to abide by park regulations that protect the natural resources in the park. They are allotted only a certain amount of timber for fuelwood and are not allowed to cut down or harvest more than their allotted share. *Cordyceps sinensis* is a parasitic fungus that grows on the larvae of ghost moths. They are very valuable and have a regulated harvest, whereby only 3 people per household receive permits to harvest one month during the year. Unfortunately, these regulations are not well-enforced.

Regulation and enforcement is very difficult in a country with few resources and great swaths of remote areas. The district of Gasa, the largest district of the park, is considered the most remote and least populated in the country (Penjore and Dorji 2006). Therefore getting the support and cooperation of community members living in the park is essential to conserve natural resources. In order to find common ground it is important to understand some socio-economic issues of park dwelling communities, including:

1. The majority of inhabitants in JDNP are subsistence farmers and herders with very low income. Sustainable use of the park's resources can be an issue as people's livelihoods are tied to them ("Tigers" 2005).
2. While crops can be negatively affected by wildlife (e.g. wild boars), livestock depredation by wild animals is probably a more pressing issue. People's livestock roam the forest freely and there is indication that tigers and leopards in JDNP are killing livestock. After the establishment of the park and increased restrictions and protection measures for park wildlife, there has been an increase in complaints and human-wildlife conflicts.
3. Youth currently make up about 57% of Bhutan's population (Dorji and Kinga 2005). Unfortunately, there is an increasing trend for rural youth to drop out of school and migrate to urban areas of the country. There is not enough employment there and many of these uneducated youth become marginalized and vulnerable to deviant behaviors (Dorji and Kinga 2005). There is increasing priority in Bhutan to find employment for these youth, and address the issue of rural-urban migration. The government has suggested employing them in tourism.

Government Standpoint

The government promotes Gross National Happiness (GNH) as a guiding principle for development in Bhutan. The four pillars of GNH are the promotion of sustainable development, preservation and promotion of cultural values, conservation of the natural environment, and establishment of good governance. Given the principle of GNH, it is in the government's interest to pursue ecotourism in JDNP as a method to improve human-wildlife conflicts, provide sustainable approaches to development and employment, and as a method to conserve the park's cultural and natural resources. Furthermore, ecotourism has been incredibly successful in countries like Costa Rica, Ecuador, and Kenya, providing a significant portion of revenue for these governments (Isaacs 2000).

The representatives of the Gasa dzongkhag and Goenkhatoe geog governments I spoke to were eager to develop tourism in their respective areas. They believe tourism will help the economy and increase the attention given to this remote and undeveloped area in the country.

Tourist standpoint

Ecotourism is currently the fastest growing sector of the tourism industry, with an average annual growth rate of 20 to 30 percent (Egan 2001). With increasing environmental and cultural consciousness among travelers, ecotourism fits the demand for a travel experience that is environmentally and socially responsible (Garen 2000). According to the tourists I surveyed, almost one-third of the tourists' tour operators advertised ecotourism. Surveys

distributed by TCB showed that tourists come to Bhutan for both its beautiful nature and its unique culture (RGoB 2009b); however, tourists also are interested to involve local communities. In a survey of 285 tourists that came to Bhutan, 91% said they would be willing to “employ local people” (Garung and Seeland 2008). Additionally, 85% would be willing to “join tours organized by locals,” 79% would be willing to “pay a fee for local development,” and 64% would be willing to “pay a fee for waste management.” Therefore, tourists want to come to Bhutan not only to experience the environment and culture of Bhutan, but also to benefit communities and their development (Garung and Seeland 2008).

According to my survey results, hiking was ranked as the most favorite activity that tourists participated in during their trips. Visits to Buddhist sites and communities were also popular activities. Fortunately, JDNP has many of these assets that tourists are looking for. It has some of the best and most popular routes for trekking, including the Jomolhari trek, the Snowman trek, and others. There are also many Buddhist sites and sacred areas in the park. For instance, there are two Dzongs in the park dating back to the 1600s: one in Gasa and the other in Lingzhi. Dzongs serve both as administrative offices and as monasteries. There are other sacred sites, including ruins, *chortens* (holy site or monument), medicinal waters, and the holy mountain of Jomolhari. Finally, the Gasa dzongkhag is the most remote district in all of the country and is home to the Layap and Lunap indigenous groups with a unique culture and language. Trekking tours that come through the park often make stops in the villages of Lunana and Laya so tourists can become acquainted with these groups.

Since tourists expressed a wish to see more festivals, do more trekking, and travel to remote areas, JDNP is well positioned to provide these opportunities to tourists. Furthermore, there are two festivals in the park that would be interesting to tourists. The government is developing a takin festival to celebrate Bhutan’s national animal and there is an annual 4-day *tsechu* (annual religious festival) in September. This tsechu takes place near the dzong in Gasa. During this festival people perform Buddhist rituals, mask dancing, and sing to *guejay*. Guejays tell the story and history of Gasa and Bhutan.

Tour operator standpoint

There are over 200 tour operators in Bhutan and many market ecotourism (See Appendix D). According to my survey of tour operators, 77% of the respondents said their company offered ecotourism. Martha Honey, a leading expert on ecotourism, says it should build the environmental awareness, empower, and provide financial benefits to local people.

While some tour operators expressed that they do not know what ecotourism is, the survey results show that many tour operators are familiar that ecotourism should benefit local communities and reduce environmental impact. Yet, benefiting and involving local communities is seldom practiced in Bhutan. As stated earlier, most of the money paid by tourists to tour agencies goes to a small number of urban elite working in the tourism industry. In cases where tourists are in remote areas or go trekking; cooks, guides, and drivers generally come from Thimpu or other cities. According to a study by Garung and Seeland, 2008, only 14% of food on treks is locally bought; usually perishables, like cheese, butter, and eggs (Garung and Seeland 2008). Of the 100 tour agencies surveyed by Garung and Seeland, 33% of them have hired portering services from local communities, 32% have hired locals as cultural entertainers, and 22% have hired local guides (Garung and Seeland 2008). Only 3% of tour operators employed local cooks (Garung and Seeland 2008).

According to the surveys of tour operators that travel along trekking routes, 31% prefer pitching tents for accommodation, while 25% prefer staying in simple eco-lodges (Garung and Seeland 2008). Putting tourists in tents does keep the costs low for the tour operator, but does not provide income to local communities. According to an Assistant Forest Ranger at JDNP, tour operators almost always pitch tents in non-designated camping sites, so even if locals created campsites, they would not stand to benefit. Given that studies in neighboring Nepal have shown that tourists on treks would prefer simple ecolodges, there is potential here for tour operators to partner with the government and local communities to establish such accommodations. Although the tour operators would give up money by using more of the daily tourist tariff for accommodations, providing ecolodges along trekking routes might attract more trekkers to Bhutan, who might otherwise hesitate to pay such a high daily tariff to camp.

In principle, tour operators acknowledge the important role that communities play in tourism. In the surveys by Garung and Seeland, the activities that these tour operators agree to support include joint-management of tourism with local communities (supported by 98% of operators), eagerness to acquaint tourists with local culture (95%), and engaging local people (84%) (Garung and Seeland 2008). Other activities that receive more support than opposition include: buying food from locals (50%), paying a park entrance fee (56%), and paying a waste disposal fee (52%) (Garung and Seeland 2008). Additionally, the tour operators suggest that it is the park or government's responsibility to maintain tourism infrastructure and to maintain the sustainability of natural resources (Garung and Seeland 2008). In other words, the tour

operators do principally support the conservation of natural resources and the employment or involvement of local communities, but they do not want to do this at their expense.

4.1.2. JDNP Assets

The following are assets in JDNP of interest to tourists:

Natural assets	
Type	Comment
National symbols	Jigme Dorji is the only place where one can see all four national symbols of Bhutan: the blue poppy (<i>M. betonicifolia</i>), the takin (<i>Budorcas taxicolor</i>), the raven (<i>Corvus corax</i>), and the Himalayan cypress (<i>Cupressus torulosa</i>). The takins tend to graze near the border of laya/lingzhi in the summer and then travel to Damji opposite the hot springs in the winter.
30 species of mammals	Among these are: Royal Bengal tiger (<i>Panthera tigris</i>), snow leopard (<i>Panthera uncia</i>), clouded leopard (<i>Neofelis nebulosa</i>), Himalayan black bear (<i>Ursus thibetanus</i>), red panda (<i>Ailurus fulgens</i>), takin, blue sheep (<i>Pseudois nayaur</i>), Himalayan serow (<i>Capricornis thar</i>), sambar (<i>Cervus unicolor</i>), musk deer (<i>Moschus moschiferus</i>), and wild dog (<i>Cuon alpinus</i>).
300 species of birds	Among these are: red headed trogon (<i>Harpactes erythrocephalus</i>), Ward's trogon (<i>Harpactes wardi</i>), wedg- tailed pigeon (<i>Treron sphenura</i>), fire-tailed myzornis (<i>Myzornis pyrrhoura</i>), green-backed tit (<i>Parus monticolus</i>), white-gorgeted flycatcher (<i>Ficedula monileger</i>), yellow-vented warbler (<i>Phylloscopus cantator</i>), white-browed shortwing (<i>Brachypteryx montana</i>), spotted wren babbler (<i>Spelaeorinis formosus</i>) pygmy wren babbler (<i>Pnoepyga pusilla</i>), lesser shortwing (<i>Brachypteryx leucophrys</i>), grey sided laughingthrush (<i>Garrulax caerulatus</i>), slender-billed scimitar babbler (<i>Xiphirhynchus superciliaris</i>), golden breasted fulvetta (<i>Alcippe chrysotis</i>), brown parrotbill (<i>Paradoxornis unicolor</i>), black tailed crake (<i>Amaurornis bicolor</i>), satyr tragopan (<i>Tragopan satyra</i>), rofous breasted bush robin (<i>Tarsiger hyperythrus</i>), purple cochoa (<i>Cochoa purpurea</i>), yellowish-bellied bush warbler (<i>Cettia acanthizoides</i>), fulvous parrotbill (<i>Paradoxornis fulvifrons</i>), goldnaped finch (<i>Pyrrhoplectes epauletta</i>), Tibetan snowcock (<i>Tetraogallus tibetanus</i>), Himalayan griffon (<i>Gyps himalayensis</i>), golden eagle (<i>Aquila chrysaetos</i>), grandala (<i>Grandala coelicolor</i>), white bellied redstart (<i>Hodgsonius phaenicuroides</i>), ibisbill (<i>Ibidorhyncha struthersii</i>), nutcrackers (<i>Nucifraga caryocatactes</i>), yellow-billed blue magpie (<i>Cissa flavirostris</i>), white bellied heron (<i>Ardea insignis</i>), minivets (<i>Pericrocotus</i>), noisy striated laughingthrushes (<i>Grammatoptila striata</i>), monal pheasants (<i>Lophophorus impejanus</i>), and others.
1,400 species of plants	There are 563 Genera and 144 Families of recorded plants in JDNP. The park contains 8 of 11 vegetation types found in Bhutan. There is riverine vegetation along the four rivers; temperate broadleaf forests at lower elevations; pine forests at middle elevations; mixed conifer forests at the upper-middle elevations; and sub-alpine forests (birch-rhododendron), alpine scrub, alpine meadows, and alpine scree at the highest elevations. Some trees include the Himalayan birch (<i>Betula utilis</i>), Himalayan cherry (<i>Prunus rufa</i>), Kharsu oak (<i>Quercus semicarpifolia</i>), Himalayan cypress (<i>Cupressus corneyana</i>), blue pine (<i>Pinus wallichiana</i>), and chir pine (<i>Pinus roxburghii</i>). There are also many species of rhododendrons, wild orchids, as well as poinsettias. There are also about 200 medicinal plant species, including threatened endemics like <i>Dipsacus atratus</i> , <i>Meconopsis primulina</i> and <i>Saussaurea gossiphora</i> .
Medicinal tourism	There are a number of plants found in JDNP that are used for medicinal purposes. In fact there is an arrangement between the National Institute of Traditional Medicine and residents in the park to send certain species of plants for medicinal use at the

	<p>institute. Another source of medicinal tourism would be the <i>Cordyceps sinensis</i>. Found in high elevations of the Himalayas, the <i>Cordyceps sinensis</i> is a fungus that invades the larvae of a particular moth. The fungus gained popularity as a medicine when three Chinese Olympians attributed their success to taking a supplement containing the <i>Cordyceps sinensis</i>. Studies have shown that one's aerobic abilities improve by ingesting the <i>Cordyceps</i>. Every year, people in Himalayan countries harvest these fungi at high rates and for a lot of money. One source lists the max price of 1 oz of <i>Cordyceps</i> at about \$172 ("Cordyceps n.d."). According to Modern Marvels, a History Channel show, 1 oz of the <i>Cordyceps sinensis</i> can sell for US\$900 dollars ("Molds" 2008). This fungus is growing in recognition and tourists may be interested to see people harvesting the fungus or to see the homes of those in remote areas who have profited from its sale. The harvest, however, is during the monsoon season, which may make it too muddy for trekkers to reach remote areas where harvesting occurs.</p>
Mushroom picking	<p>This has become a popular activity in Thrumshingla national park in central Bhutan, though I have not found much information on mushrooms in JDNP. There could be potential.</p>

Cultural assets	
Type	Comment
Folklore (two examples)	<p><i>Romeo and Juliette story/ Lama Singay:</i> There was a monk in Gasa by the name of lama Singay who one day went to the monastery in Punakaha. While there he met a young woman that he took a liking to. After many trips to Punakha and visits with this young woman, the two fell in love. Unfortunately, both of their families did not approve of their love and they were not permitted to marry. The woman in Punakha was so heartbroken that she committed suicide. When the monk came to visit her and found her dead, he was so devastated that he killed himself by jumping into a cremation fire. You can still see the young woman's dilapidated house in Punakha and Lama Singay's (currently occupied) house in Gasa. Additionally, locals in Gasa believe that two cypress trees embody the couple who now are now finally together as trees.</p>
	<p><i>Medicinal waters/Vulture:</i> See below under recreational assets.</p>
Indigenous communities	<p><i>Layaps:</i> Lying at 3,850 m, just below the Tsendagang peak, is the town of Laya. The residents of Laya, called layaps, are semi-nomadic yak herders with their own dress, dialect and culture. The most similar group is the Lunaps, described below. Layap women are known for their conical bamboo hats and long black woolen dress with bright blue sleeves and silver jewelry. The Layaps are ethnically related to Tibetans, speak a Tibeto-Burman language unique to Laya, and practice a combination of Bon and Tibetan Buddhism (BBC 2009). Like other groups in the region, the Layaps' survival depends on herding yaks and growing barley, buckwheat, mustard, and wheat. Each year in Laya, a household will hold a <i>choku</i> to honor the deities and spirits that protect their house. This <i>choku</i> involves the village shaman or <i>Pow</i>, as well as other village members in a three day celebration. Another cultural event is their <i>Bonpo</i>, or religious festival held every May.</p>
	<p><i>Lunaps:</i> Similar to the Layaps in culture, the Lunaps from Lunana rely on yaks for meat, butter, cheese and wool. Additionally, both groups move from their respective villages to yak camps at different times of the year. In the winter, they often move to lower altitudes. The Lunaps also practice polyandry, where a woman is married to two or more husbands at one time. This practice, however, is becoming less common. The Lunaps are distinguished from the Layaps not only by their location but also due to their relative poverty and fewer numbers. Additionally, the Lunap women lack the conical hat of the Layap women. Finally, Lunaps walk around chortens in an anti-clockwise fashion to please spirits, whereas the majority of</p>

	Bhutan's population (including Layaps) walks clockwise around them.
Tsechu (annual festival)	In September there is a 4-day festival in the district of Gasa. The first day of the festival is located at an old temple close to Gasa (a 15 minute walk away), and the last three days are located near the dzong in Gasa. During the festival, everyone makes a big line and performs rituals. They say prayers and offer rice and butter to deities. There is also mask dancing and singing to guejay (series of songs performed over 5 days). In all, there are 25-26 guejays that tell the story and history of Gasa and Bhutan. Tourists can participate by watching and also by locals saying prayers for them. Technically, if the deities allow it, the festival can be held at a different date, should that be most suitable for tourism.
Historical and Buddhist sites	<i>Dzongs</i> : There are two dzongs in the park, both built in the 1600s. They are in Gasa and Lingzhi.
	<i>Ruins</i> : There are various ruins around the city of Gasa, the most important of those being Tapsi Gempa.
	<i>Holy sites</i> : Mt. Jomolhari is seen as the protector goddess of Bhutan and Tibet. Nearby are meditation caves of Milarepa and Gyalwa Lorepa. One hour away there is a 'spirit lake' of Tsheringma.

Recreational assets	
Type	Comment
Trekking	<i>Snowmen trek</i> : This 25+ day trek gives stunning views of some of the largest peaks in Bhutan and passes through interesting villages like Lingshi, Laya, and Woche. Some of this trek is broken down into smaller treks mentioned below. This trek passes through the Soe ranger's office.
	<i>Jomolhari trek</i> : This 9 day trek gives stunning views of Jomolhari and allows visitors to pass charming villages, like Lingshi. This is the most popular trek in Bhutan, selected by 40% of trekkers (Brown et al. 2007). The trek passes through the Soe ranger's office.
	<i>Gasa-Laya trek</i> : This trek follows the Mochu and Pachu rivers and brings trekkers to the culturally unique village of Laya. This trek can be done in 13-17 days depending on the starting and ending points. The trek passes through either Soe and Gasa ranger's districts and Damji Park headquarters.
Mountain biking	Potential on various trekking routes. Not very developed.
Kayaking/Rafting	Phochu (male river) and Mochu (female river) are two that are popular for rafting in Bhutan. Two other rivers in the park are Wangchu and Pachu. Overall rafting is not very developed in the park.
Tsachus (hot springs)	The main <i>tsachu</i> (<i>hot springs</i>) is in Gasa, but it needs to be restored. Other tsachus are found in Khoma, Chubu and Woche.
Medicinal waters	According to an interview with the Officiating Head at Gasa dzongkhag, there are 12 sources of medicinal waters close to the village of Gasa and probably 100 in the entire district. Locals believe that drinking or bathing in these waters will heal a variety of ailments, including stuttering. There is also a local story about a vulture that took advantage of these healing waters. The vulture was eying some drying meat and when he swooped down to take a piece, he accidentally picked up and swallowed a knife that was being used to cut the meat. The vulture struggled its way to a source of medicinal waters and was healthy again.

4.1.3. Infrastructure

Trekking paths

The various paths in Jigme Dorji National Park include the trekking routes between Gasa and Laya, the Snowmen trek, and the Jomolhari trek. There is also an old trading route between Gasa and Lingzhi, which the Gasa dzongkhag has set the money aside to restore. These paths are maintained about every year by the Gasa dzongkhag and are popular for tourists and well-known among tour operators.

Accommodation

It is unclear how many guesthouses are located in the JDNP, though interview participants estimated that there are between three and five. There are no hotels in the park. Apparently, ten campsites were proposed to be built in the park with the Integrated Management Project funded by the UNDP, RGoB, and WWF from 1997-2003. According to my sources, there are established campsites at Gasa, Koina, Shana, Shatem, Damji, and Jangothang. The Koina campsite has a common kitchen, toilets, and a surrounding fence. It is unclear what amenities the other sites offer. There was a campsite near the *tsachu* (hot springs) in Gasa, but it was washed away in the flood. There are locals in Gasa who are interested in building campsites, should the Gasa hot springs be restored.

Stores and restaurants

While the guesthouses certainly provide food to guests, the only restaurant in JDNP that I am aware of is in Gasa. There are many small shops throughout the park. In Gasa there are about a dozen shops selling groceries, general goods, and alcohol. Due to the remoteness of the park, groceries cost two or three times the price in Punakha or Thimpu (Brown et al. 2007). There are no markets or stores selling handicrafts or other goods tourists might want like sunblock, bug spray, etc.

Electricity and communication

In 2006, the dzongkhag of Gasa was the last in the country to receive electricity. Still, very little of the park has electricity and for the areas that do have electricity, it is intermittent. Telephones were connected in Gasa in the late 1990s, but the use of phones is very limited in the park. There is no internet connection available.

Health/safety

There is a basic health unit (BHU) in Lingzhi, Lanana, Damji, and Gasa for primary care. Should tourists have altitude sickness, operations, fractures, or other issues beyond primary care, they must travel to Punakha, which is a 2.5-4 hour ambulance ride from Damji, (the park headquarters. Most severe cases go to Thimpu, another three hours drive from Punakha. Helicopters are another option to rescue tourists. There are helipads in Gasa, Damji, and Laya.

Park infrastructure

The park headquarters, including a visitor center, staff offices, and staff accommodation, is located in Damji. The visitor center is a short walk from the main road and consists of one room surrounded by staff offices. There is a useful pamphlet and pictures and information provided on boards around the room. The information is provided in English and is very thoughtful; however it appears that the exhibit is old and dusty. Dried or stuffed wildlife specimens from the park (red panda, insects, etc) lay unprotected. The toilets are not in good condition and no food, drink, or other goods are sold here. According to park staff, only a dozen or so tourists come to the visitor center every year.

There are also eight range offices in the park at Dodena, Gasa, Laya, Lingshi, Lunana, Misizam, Rimchu, and Soe. There are guard posts in Dodena, Laya, Lunana, Tashithang, and Tshachuphu. There are warden posts in Lingshi, Misizam, and Gasa. There are also army posts closer to the border with Tibet.

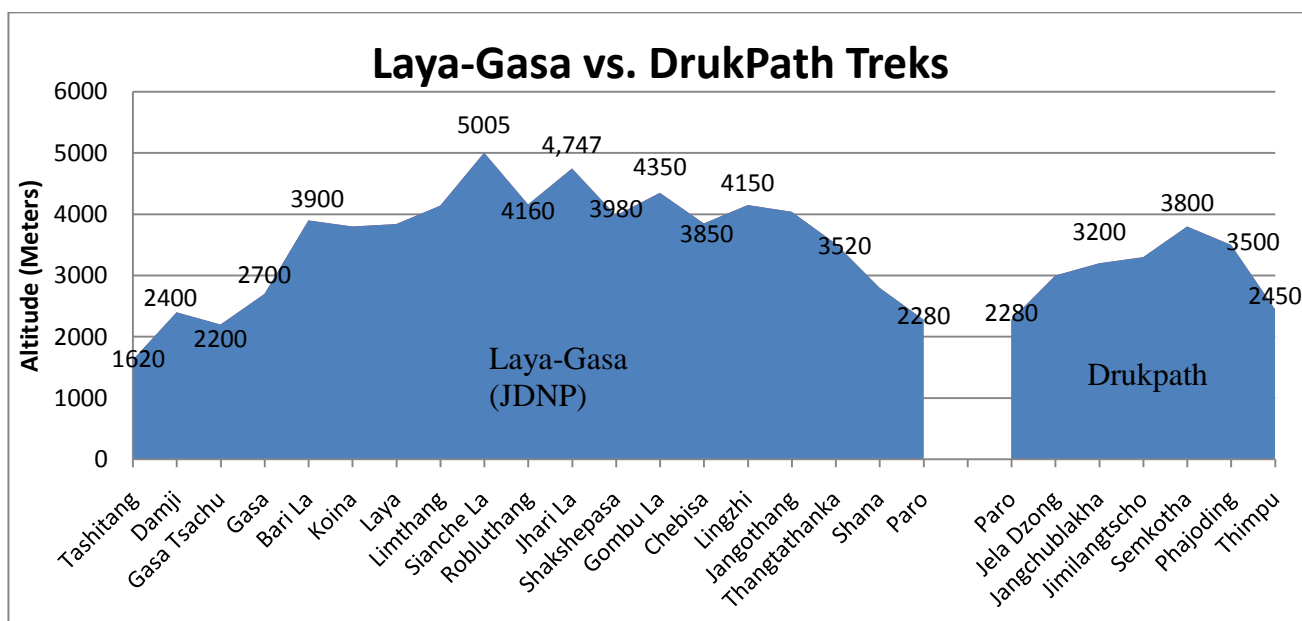
4.1.4. Obstacles for ecotourism

In addition to sustainable and environmentally friendly travel to natural areas, ecotourism engages and empowers local communities, incentivizing them to conserve their natural resources. Ecotourism, though widely advertised and discussed in Bhutan, is somewhat difficult to implement, given that communities are not often engaged or benefitting from tourism. This is because Bhutan's unique tourism policy requires tourists to prepay for a package tour with a Bhutanese tour agency. This company arranges for the tourists' accommodation, guide, meals, and itinerary using a percentage of the \$250/day tariff tourists pay. The other percentage of the money goes to the government. Very little money from tourism reaches rural communities of Bhutan. Therefore, one major obstacle to ecotourism is the tourism policy.

However, with proper coordination from the tour companies and related organizations, packages and tours can be arranged such that rural communities can be involved in such tourism and receive direct financial benefits from the tour companies and tourists themselves.

Regarding Jigme Dorji National Park itself, there are a number of obstacles to ecotourism. Firstly, the park is in one of the most remote areas of the country with little infrastructure and resources. There is only one road in the park that leads to Damji. To get elsewhere one has to trek to other areas of the park. From Damji to Gasa it is a 4-6 hour walk. From Gasa to Lunana requires 12 days on foot. This restricts mobility for community members who wish to coordinate on ecotourism plans and management. This also constrains tourism potential since a visit to the hot springs, indigenous communities, and most areas of the park require tourists to be able and willing to hike. For instance, a tourist interested in the hot springs must be able to hike 4-6 hours to get there from the nearest road. If one wants to visit with indigenous communities, one must be committed to trek for several days. Given that tourists in Bhutan tend to be older (see Table 13), this may limit the number of tourists interested in doing this. Furthermore, treks outside the park are shorter and seen as less strenuous, so some tourists may choose to do these treks instead. For instance, trekking routes in JDNP require 9 to 25+ days; while the trek to Taktsang Monastery is only a few hours and the Drukpath trek is only 6 days. (See Figure 15.)

Figure 15: Comparison of Laya-Gasa Trek in JDNP and Druk Path Outside JDNP



Note: These altitudes do not reflect the topography of the landscape, but rather reflect elevations at campsites and passes of each tour.

On a related note, because of the \$250 tariff that tourists must pay for every day they are in the country, it is in the tourists' interest to limit the number of days in the country. Therefore, some tourists may not think a 9-25+ day trek is within their budget. Similarly, given that tourists pay the same \$250 whether they are hiking/camping or staying in fancy hotels, some tourists may not be able to justify spending their money to trek several days if at all.

Another obstacle to tourism in general is limited infrastructure in JDNP. As noted, some tourists may not be comfortable spending \$250 per day to camp in the park. Unfortunately, there are no hotels and only a few guesthouses. Most tour groups that come to the park pitch tents in one of several campsites or non-designated areas. Furthermore, electricity and phone use is limited and internet is unavailable in the park.

There are a few shops selling food and drink near villages and trails, though products are limited. Handicrafts, bug spray, sun block, and other goods that tourists might be interested to purchase are unavailable. Another issue is that the visitor center in the park head quarters building is in need of a facelift to be more attractive to tour operators and tourists. Finally, the Gasa hot springs and adjoining campsite were ruined in a 2009 flood, so resources and coordinated efforts are needed to rebuild and develop the new facilities.

Another obstacle to ecotourism is that illiteracy rates are very high in the park, education is poor in remote areas, and community members have little knowledge of tourists or tourism projects. Their limited education, inability to speak English, and limited understanding of tourists' desires is one of the main reasons that tour operators do not hire locals during tours. (See Tables 23 - 25.) Additionally, this limited education and know-how translates to little capacity to develop and manage ecotourism ventures. Without the ability to write, it is difficult to monitor, record, and evaluate progress on ecotourism projects. For instance, the initial gup in charge of managing the UN-funded hot springs project did not have any documents on the project, and was unable to transfer this to other stakeholders. This is also a serious problem in managing funds and maintaining accounts.

Finally, I was unable to speak directly to community members that made up the GEA, but I was given the impression by others that there is no leadership among the villagers living near the hot springs. In order for ecotourism to be successful, the community must be engaged, but also must have a leader that can provide direction, commit to the project, and coordinate with stakeholders.

4.1.5. Summary: SWOT Analysis

In order to better understand how to implement ecotourism in JDNP, a SWOT analysis was performed. This analysis assesses the strengths, weaknesses, opportunities, and threats. Strengths and weaknesses are attributes that are helpful or harmful to ecotourism in JDNP. Opportunities and threats are external conditions that are helpful or damaging to ecotourism in JDNP.

Strengths	
Attribute	Comment
<i>Gross National Happiness</i>	The principles of this overarching government policy are consistent with ecotourism.
<i>Tourism policies</i>	The tourism policy and tour operator guidelines create minimal impact on environment and culture, consistent with ecotourism. Furthermore, high tourism tariffs result in older, more educated, environmentally conscious tourists in Bhutan.
<i>Culture/Religion</i>	Buddhist philosophy promotes conservation such that it is consistent with ecotourism.
<i>Potential</i>	There are a multitude of opportunities for ecotourism in JDNP, which have not been developed. Additionally, there is untapped potential for more tourists in the park.
<i>English capabilities</i>	English is the government language, used in documents, road signs, and as a medium of instruction in schools. This is helpful since the majority of tourists are from English speaking countries. During a visit to a school in Damji, it was apparent that the students spoke English very well.
<i>Tourism assets of JDNP</i>	Bhutan's rich biodiversity, geography, and culture make it an ideal candidate for ecotourism. There are numerous natural, cultural, and recreational assets in JDNP. These assets are in line with tourist preferences and practices (See Section 3.2.1).
<i>Proximity of JDNP</i>	JDNP is the closest national park to the capital (Thimpu) and the country's only airport. Given that most of tourists' time is spent here in the west of the country, JDNP is well-located for tourism.
<i>Interest among stakeholders</i>	Community members, the Gasa dzongkhag, geogs, NCD, and JDNP park staff are all interested to bring ecotourism to the park. Mutual focus centers on the hot springs.
<i>Campsites</i>	An integrated management project, completed in 2003, provided a number of campsites along trekking routes for tourists. (See 4.1.3.)

Weaknesses	
Attribute	Comment
<i>Dispersed community</i>	The communities in the park are widely dispersed throughout the park. Given mobility constraints, it is difficult to engage all communities in the hot springs project.
<i>Mobility</i>	There is only one road in the park and it only leads to Damji. This means tourists that want to do trekking in the furthest regions of the park need to commit significant time and money to be there. It also means that community members in Gasa dzongkhag cannot easily convene.
<i>Illiteracy, poor education in remote areas</i>	The illiteracy rate is very high in JDNP. The remoteness of the park coupled with minimal resources, means most inhabitants (especially in rural areas) are not able to speak English and might not be aware how to interact or work with tourists. This is a problem for tour operators considering hiring locals. This is

	also potentially a problem in maintaining accounts, records, and documents for the ecotourism project.
<i>Little infrastructure</i>	There are minimal roads, limited electricity and phones, and no internet. There are no hotels and little-known guesthouses. There is no market and limited shops. This is less comfortable and appealing to tourists. Tourists must be willing to camp to come to JDNP.
<i>Low capacity of community</i>	There is very little know-how in regards to developing, organizing, and managing ecotourism ventures in the park.
<i>Leadership</i>	No community leaders have emerged for ecotourism.
<i>Lack of coordination</i>	Interviews indicate a lack of coordination among communities in Gasa and with other stakeholders. (See Section 4.1.4).
<i>Gasa hot springs gone</i>	The hot springs and adjoining campsite were washed away in spring 2009 flood. Money is needed to divert the hot springs away from the river and rebuild the facilities.
<i>Long, strenuous treks</i>	The snowman, Jomolhari, and Laya-Gasa treks in JDNP are longer and considered more strenuous than other trekking routes in the country. Given that a majority of tourists in Bhutan are over 56 year of age, these treks may be limiting.
<i>Deficient visitor center</i>	The visitor center at the park is dusty and undeveloped. There are no public restrooms and no store.

Opportunities	
External Condition	Comment
<i>Favorable to ecotourism</i>	The communities, local governments, park staff, and NCD are favorable to ecotourism as a way to resolve conflicts in the park and alleviate poverty and unemployment.
Available resources	The government (TCB), and ABTO have resources to build infrastructure, and provide rural training programs to improve ecotourism in JDNP.
<i>Opportunities to develop tourism assets</i>	There is untapped potential for ecotourism in the park, given tourist interests in rich biodiversity and culture. Research suggests that tourists desire to interact with communities and take advantage of recreational opportunities afforded by the park. (See Section 4.1.1).
<i>Accommodation</i>	There are already campsites and some guesthouses in the park. The initial focus can be on improving already existing accommodation.
<i>Awareness of JDNP</i>	JDNP is the most visited of national parks and tour operators are aware of its assets in trekking, birding, and communities. More can be done to raise awareness and develop other assets like Buddhist sites, cultural performances, festivals, and recreational tourism.
<i>Tourist support of ecotourism, communities</i>	According to Garung and Seeland, tourists support ecotourism and are willing to employ or otherwise benefit communities. My survey results suggest that tourists are willing to pay extra money for a hot springs entrance fee in order to provide supplemental income to the surrounding community.
Seasonality	Also considered a threat, the fact that tourists avoid summer months means that community members can tend to their harvests or livestock during this time.
<i>Road to Gasa</i>	A new road is being extended from Damji to Gasa, allowing for better mobility and access. The park headquarters may be relocated here, allowing for better coordination of ecotourism between the park, communities, and the dzongkhag.

Threats	
External Condition	Comment
<i>Tourism policy, costs</i>	Since the tourism policy means tourists travel in package tours, little money reaches communities where they travel. Additionally, since the tariff is so expensive, tourists limit external spending and minimize days in the country. Since JDNP is remote and the treks take a long time, some tourists may not want to travel to or spend much time in the park. Additionally, since tourists are obliged to pay \$250/day, some tourists find it hard to justify camping when they can stay in nice hotels.
<i>Unfavorable to ecotourism</i>	Representatives from TCB and ABTO would like to phase out the use of the term 'ecotourism' for 'community-based nature' or 'sustainable' tourism. They are generally not supportive of community-managed projects, preferring entrepreneurial approaches for tourism.
<i>Competition</i>	The recently piloted Nabji-Korphu trail in Jigme Singye Wangchuck National Park and the brand new visitor center and mushroom festival in Thrumshingla National Park serve as competition for the ecotourism market in Bhutan. These are the most frequently visited parks in Bhutan after JDNP (See Figures 4 and 9.) In addition, other shorter or less strenuous hikes, like Drukpath, are seen as better alternatives for tourists that cannot do strenuous hiking or who do not want to do the long hikes in JDNP.

4.2. Guidelines for Ecotourism in JDNP

4.2.1. General recommendations

Ecotourism can become an important component of Bhutan's conservation and economic development strategy. In Jigme Dorji National Park, ecotourism serves to reduce community-conservation conflicts, improve relations with park staff and inhabitants, and provide economic incentives for conservation of the park's natural resources. There are many untapped opportunities for ecotourism within the park, so it is imperative that the government promotes investment in infrastructure and capacity-building of communities in the park. Additionally, the government should work with ABTO and TCB to raise awareness and market ecotourism initiatives and assets in the park. My particular recommendations follow.

Develop assets of JDNP

According to one US tour operator, tourists are increasingly interested in recreational or adventure activities. While these opportunities are limited in Bhutan and undeveloped in Jigme Dorji National Park, there is potential for them to be developed. For instance, white-water rafting and kayaking could be developed since there are four rivers in the park. Rock climbing and mountain biking are other possibilities. Finally, the development of shorter and less

strenuous treks would provide opportunities for older tourists or those who do not want to spend 9+ days doing the current treks. Given preparations for a road to Gasa, all of these activities could be centered there, since the Mochu River is nearby. If the park headquarters and visitor center are relocated here, this building can also serve as a place to rent bikes, kayaks, and other equipment for tourists.

Other assets that can be developed in JDNP are cultural activities and interaction with locals. According to my survey of tourists, 'visits to communities,' 'cultural performances' and interaction with locals were some of the favorite activities tourists participated in during their trips. (See Table 17.) Some specific activities could include locals showing tourists how to do archery, make rice cakes, make yak cheese, or how to make paper from the daphne plant. Additionally, monks could demonstrate calligraphy, villagers can show how they weave textiles, or Layaps can show how they make their bamboo headdresses. (See 4.2.2..)

Develop infrastructure for tourists

Currently, JDNP has very little infrastructure for tourists and there are no hotels in the park. Apparently, there are a few guesthouses, but there is very little information about them. According to internet research, the companies that advertise tours to the park only mention camping as a form of accommodation. While park staff who were interviewed claim that tour groups often pitch tents outside of designated camping areas to save money, only 2% of tour operators said they did not camp in designated areas (89% said they do). (See p. 45.) Tour operators explained that sometimes there are no official campsites, other times official sites are too crowded, and sometimes there is a better spot nearby. When tour operators were asked for their minimal criteria to pay for a campsite, the main priority was access to water, followed by access to clean toilets. (See Table 27.)

While there are some shops selling food and drink in the park, handicrafts and other goods important to tourists are unavailable. Given that the park is considering moving its park headquarters to Gasa when the road is completed, the park has the opportunity to improve its visitor center. This new visitor center should have improved exhibits (much like the new visitor center in Thrumshingla), provide access to restrooms; and have a community-managed store selling handicrafts, drinks, food, guide books, binoculars, bug spray, and sunblock. (See Section 4.2.2.) As mentioned above, equipment could also be rented out from this headquarters. According to my survey results, tour operators go to visitor centers for information, exhibits, and for a restroom stop. The main reason they do not go to visitor centers when available is due

to a lack of public toilets and no availability of food and drinks. (See Figure 12.) Visitor centers are important ways for the park to share information (and rules) with tour operators and their tourists and receive feedback. Additionally, it provides a way for the park (and community) to earn some money from tourism.

Rural education programs

In order to improve the capacity of communities to lead and manage ecotourism ventures in the park, rural training and education programs are required. Tourism is the fourth largest revenue source for the RGoB and, according to my research, the government (especially TCB) and ABTO have the resources to provide such programs in the park. These training and education programs can prepare park inhabitants for tourism, train them with the skills necessary to be hired by tour operators, and improve their ability to manage and implement ecotourism ventures. (See Section 4.2.2 for more information.)

Marketing of JDNP

While JDNP appears to be the most visited national park in Bhutan and is popular for trekking and birding, there are other assets in the park that may be undervalued. About 30% of tour operators I surveyed have not brought tourists to protected areas, so there is potential to attract tour operators and their tourists for attractions other than trekking and birding. According to my surveys, after hiking, the favorite activities for tourists in Bhutan were 'visits to Buddhist sites,' 'visits with communities,' and 'cultural performances.' (See Table 16.) When tourists were asked in an open-ended question which activities they would have liked to participate in, the most frequent response was to see a festival. (See Table 16.) However, when I surveyed tour operators of the activities that tourists could participate in at JDNP, 'community visits,' 'Buddhist sites,' and 'cultural performances' ranked 7th, 8th, and 9th of 14 activities. Only 'community visits' were seen as more available in JDNP than other protected areas. (See Figure 10.) Additionally, when tour operators were asked what the best attractions were in JDNP, only 30% said 'cultural performances' and 26% said 'religious sites.' (See Table 20.)

It does seem that tour operators recognize the importance of the indigenous communities, as this was the second most highlighted attraction in the park (77% of responses). It appears, however, that tour operators are less aware of the value tourists place on Buddhist sites and cultural performances in the park. There are two dzongs in the park; sacred caves,

lakes, and mountains; chortens; and a tsechu in September with Buddhist rituals, dancing, singing, and storytelling. (See 4.1.2.) There are also plans for a takin festival in the park. While there are plenty of Buddhist sites and festivals located outside the park, the attractions in JDNP may be preferable to tourists since they are in remote areas (a preference according to Table 15) and can be seen while trekking (a favorite activity).

Overall, JDNP currently has many tourism attractions in one place and there is potential to develop even more. Proper marketing of JDNP assets (including ecotourism) will increase tourist satisfaction, while increasing tourist numbers in the park. By increasing tourist numbers, more economic benefit can be sustained by community members involved in ecotourism. According to interviews, it is essential that tour operators understand what is available in the park and developing itineraries for one day or several days will encourage tour operators to bring tourists to the park.

Relaunch National Ecotourism Strategy and Workshop

It is recommended that the government re-launch the national ecotourism workshop, last held in 2001. The workshop should be considered a regular input into the government's planning and budgeting process. It should involve all stakeholders, and meetings should be held at the national, regional, and local level. The purpose of these meetings would be to develop plans and priority programs for ecotourism.

4.2.2. Community participation and benefit

Tourism in Bhutan meets many of the criteria established by Martha Honey as mentioned earlier, but due to the tourism policy and infrastructure, rural communities often lack participation in tourism and therefore receive little economic benefit from tourism. In JDNP, securing community participation and benefit from tourism is essential to incentivize conservation of the park's resources. In the end, communities hold the key to degradation or stewardship of the natural resources. The following are ways to develop community participation and benefit from tourism in the park:

How to engage communities

Participatory techniques

It is important that the park inhabitants are involved from the beginning in conceptual planning, design, management, and operation of any ecotourism in the park. In the initial stages, Appreciative Participatory Planning and Action (APPA) techniques can be used. In this process, community members explore the root causes of issues that concern them and identify ways to reduce these problems. They also look for ways to improve household incomes and promote wildlife and environmental conservation. The goals of this process are to: 1) Discover community's strengths and valued resources, 2) Envision short-term and long-term futures if resources mobilized and community acted in concert, 3) Design basic action plan for guiding development and nature protection that limits long-term dependency on outside financial sources or technical "know-how", 4) Motivate participants to initiate community-improvement actions immediately, and largely on their own (Jackson and Wangchuck 2001).

In order to increase the likelihood of a successful ecotourism project, not only do community members need to be involved from the beginning in the planning, design, and implementation of the project, but there should also be partnerships with government, non-governmental organizations and the private sector (Sproule 1999). Additionally, particular efforts need to be made to address current divisions or inequalities existing in the community. This is particularly important because in many community-based projects, those members with initial disadvantages (women, less wealthy, handicapped, lower education, less English capability) can easily become excluded from the process. When these groups are not included, the benefits will not be spread equally, divisions within the community will become exacerbated, and tensions could damage the sustainability of the project.

One way to successfully implement ecotourism is to bring as many community members together as possible and ask the following questions (Sproule 1999):

- **Community-** How is the community defined? Will this be acceptable to all that might be affected?
- **Participation-** Who will be part of the enterprise? Who will provide the time and effort? Will there be opportunities for young and old and for women and men equally? Will efforts be made to train those without skills to participate from the beginning?
- **Decision-making-** Who will be involved in decision making? Must everyone decide on everything or will a smaller number be given the responsibility? Will there be a governing committee? How will members of a committee be determined (elected vs. appointed)? How many people will be in the committee? What will

be their job titles and duties? Will compensation be paid? How will these people be held accountable?

- **Benefits-** How will prices for what's sold be determined? Who will collect the money? How will the money be divided? Will any percentage go into a general fund? Who will maintain the accounts? Is anyone trained to keep record books?

Then as they move forward, they can use APPA techniques to develop a plan for ecotourism in the park. This is recommended by the 2009 NCD document entitled, "A Guideline for Planning Ecotourism in the Protected Areas of Bhutan." These techniques can be applied in community planning meetings or workshops over a course of time selected by community members. These meetings should be at times of the day when most community members can attend.

There are five steps to the APPA process: Discovery, Dream, Direction, Design, and Delivery. In the first step (Discovery) the park inhabitants create an asset map of their community, taking note of natural features; cultural sites and activities; local amenities and services; and human skills. They also create a "seasonal calendar" to determine what times of the year participants are busiest or most available, and to note when the assets they listed are most available to tourists. Finally, participants create a "mobility map" to understand the mobility of people to different areas for specific purposes, distance traveled, and how long it takes to travel.

During the second step (Dream), participants develop a "future tourism map" to represent the location and distribution of activities, sites, products, service, and skills that can help the community achieve their goals. They also examine historical, current, and future trends of environmental, cultural, socio-economic, and market opportunities. The community members can split into groups to develop their own future tourism map and then present their activities to one another in an attempt to gather many ideas and reach consensus.

In the third step (Direction), participants list the activities that contribute to or fulfill their 'dream' or goals. They then prioritize those activities to see which of those best contribute to conservation of natural resources. In the fourth step (Design), the participants create an action plan for the prioritized activities answering who, what, when, where, and how.

Finally, the last step (Delivery), participants will be asked to explore their personal commitment to achieving the community dream. Only those in the process that have commitment and mobility should take leading roles in the ecotourism process. All of these partners to the project should have collective responsibility for its success, joint ownership over

the decisions, and contribute within their means (cash, labor, in-kind) (Jackson and Wangchuck, 2001). When those people are identified, participants can be asked to elect 5 members to form a Tourism Management Committee (TMC). This committee would be responsible for micro-planning (linking tour groups to guides, performers, cooks, and others), book-keeping and revenue sharing, and monitoring of tourism development. In order to avoid the disengagement and lack of commitment seen in the last ecotourism project, it could be helpful if only individuals that have come to all planning meetings are able to run for the TMC.

All of the APPA techniques are best led by a third-party facilitator. A facilitator can help community members understand the participatory process, exercise leadership, and ensure their participation. A good facilitator is independent, patient, has credibility within the community, and is willing to allow leadership to develop among the group (Garrod, 2003). This facilitator might be someone from a national NGO, TCB, or the new tourism training school.

While the community is key to this process, there are other stakeholders that can help build the capacity of the community and make the ecotourism a success. The tour operators, ABTO, BTC, NCD, park staff, partner communities (e.g. Nabji-Korphu), and universities may all be helpful in this process.

Rural education programs

Rural training and education programs are necessary to build capacity among communities to implement and manage ecotourism ventures. Project management, monitoring, and finance are key areas for capacity-building. These training programs should also help park inhabitants to better interact and understand tourists. This will encourage tour operators to hire locals as cultural performers, cooks, and local guides.

According to my survey results, tour operators' main concerns about hiring local cooks were 'bad hygiene and sanitary techniques', and 'unfamiliarity with western cuisines and diets'. (See Table 24.) This can be solved with rural training programs. The top concerns for hiring guides were that they do not have enough knowledge or expertise relating to the tour and that they are not able to speak the tourists' language. (See Table 25.) While it is unclear how knowledgeable locals might be on birds or medicinal plants, they are likely to have rich information in local folklore and history. They can also become experts in local wildlife or plants. Training of those with the best English abilities on tourism hospitality would be helpful.

During my visit at the Damji school, many students seemed to speak English very well, which is promising for future guides, since most tourists in Bhutan are from English-speaking countries.

In conclusion, the concerns described above can certainly be addressed with training programs in partnership with TCB, ABTO, tour operators and NGOs. Additionally, the newly established Hotel Management and Tourism Training School may play an important role in training. Finally, it might be helpful for selected community members to do a study tour at the Nabji-Korphu ecotourism trail to learn first-hand from other community members how to interact with tourists and implement ecotourism. This partnership should help community members understand tourism preferences; and teach them how to manage for successful ecotourism projects and maintain accounts (i.e. the community development fund).

Specific ways communities could become involved

While community members might have their own ideas for how to engage in ecotourism, I have included some likely possibilities:

Develop activities for tourism

As noted above, tour operators surveyed noted that the way they were most willing to help rural villagers earn money is by hiring them to do cultural and dance performances. Singing, dancing, and storytelling are common in rural areas and play a big role during festivals. If community members can organize and market themselves to tour operators, they could earn money by being hired by tour operators and by receiving tips from tourists for doing performances.

Other activities that would help communities earn money from tourism are archery lessons, weaving demonstrations, calligraphy demonstrations, and paper-making. Tourists also might be interested to learn how to make rice-cakes or how to milk yaks and make cheese. Finally, tourists might be interested to learn from locals about the caterpillar fungus, *Cordyceps sinensis*. If the government continues its plan to create 'fungus farms,' then tourists can learn about this process. Overall, ABTO and TCB should work with tour operators to encourage or incentivize them to hire locals for tours, lessons, and demonstrations.

Communities manage guesthouses/campsites:

One way that community members can earn money from tourism is through managing and operating guesthouses and campsites. I am told that guesthouses are available in the park,

but it does not appear that trekking tours use guesthouses. Camping is the primary form of accommodation in the park. According to my surveys, tour operators are quite interested to put their tourists in guesthouses to help villagers in rural areas earn money. (See Table 28.) If ABTO, TCB, NCD and the local governments are willing to help build these and help train community members to learn how to manage them, these could be assets to the park. Additionally, the availability of guesthouses in the park could attract more tourists during off-seasons in the park by providing warm accommodation in the winter and dry accommodation during the summer monsoon (Garung and Seeland 2008).

Given that campsites are the current form of accommodation, campsites could be managed by communities following lessons learned from the Damji campsite and the Nabji-Korphu ecotourism pilot project. Campsites need to be available at important stopping points for tour operators, so they are not forced to camp outside designated campsites. Furthermore, park staff should enforce park rules that prohibit camping outside designated campsites with a penalty. Significant coordination is required to ensure that tours stay in designated areas, so that communities have an incentive to stay engaged in managing the sites. At the Nabji-Korphu trail, tour operators were charged Nu.300/night (about \$7) per tourist, providing “substantial revenue” (RBOB 2009a). Unfortunately, cleaning the campsite was an issue and should be a priority in the management of campsites in JDNP (RBOB 2009a).

In developing the campsites, my survey suggests that the three most important criteria are: 1) access to water; 2) access to clean toilets; and 3) flat land. Further campsite amenities might include access to common kitchen areas with gas stoves, solar lights, and solar showers. Solar showers are 5+ gallon bags that, when filled and left outside in the sun, heat up water for showers. These are only about \$10 (US), can be placed on a hook, and as long as the temperature is 15C (60F), can provide warm showers for tourists.

Once the Gasa hot springs are rebuilt, an adjoining campsite and/or guesthouse would be important to ensure that tourists would be able to stay at the site. Once a road is built to Gasa, tourists might come to JDNP simply for the hot springs as opposed to another activity.

Communities manage hot springs

One substantial way for communities to earn money from tourism is through the management of the Gasa hot springs. Community members can earn money from tourists by charging an entrance fee and also by selling food and drinks. Such a project was initiated in 2001, but the springs were washed away in a flood. Given government plans to rebuild the

facilities, communities have renewed interest in its management. Please see section 4.2.3 for more information.

Communities manage store at visitor center

JDNP park staff are considering relocating their park headquarters and visitor center to Gasa. If that is the case, communities could manage a store on the premises to earn money from tourists. This store could sell drinks, snacks, maps of the park, guide books (birds, flora, and fauna), sun block, bug repellent, and handicrafts/souvenirs. Training programs might be required to produce some of these handicrafts. Possible products include textiles, trinkets relating to the park, bamboo conical headdresses as worn by Layaps (if that is culturally appropriate), hand-made paper, honey, and other goods. Crafts should be sold in this community-managed store, as opposed to by individuals, for a number of reasons. Selling in stores prevents individuals from selling religiously or culturally important goods to tourists (a current problem in Bhutan). Additionally, the community can control the prices of these goods and tourists can avoid aggressive vendors.

4.2.3. Gasa hot springs implementation

4.2.3.1. Lessons learned from UN project

According to interviews and a UN review, the Gasa hot springs initiative by the Gasa Ecotourism Association (GEA) was generally considered a failure due to a lack of coordination and capacity. Regarding coordination, community participants in the project came from geographically dispersed places across the dzongkhag, making it very difficult for the community members to be full and active participants in the project. In fact, the group only convened once or twice a year to discuss issues and concerns. The future management of the project should only include those participants that live within proximity of the hot springs and those who can be fully engaged in the project.

There was also minimal coordination with the community and other stakeholders. The community only received support from the Gasa dzongkhag, which according to the UN document did not allow the community to take full ownership of the project, considering the dzongkhag still retained land tenure to the hot springs. Regardless, there was not enough coordination with the right stakeholders to build community knowledge in book-keeping, project management, and developing ecotourism ventures. Future coordination with ABTO and

TCB is a prerequisite to the success of the project. Additionally, the project should be incorporated into Bhutan's National Ecotourism Strategy to make it a priority within the national government. Finally, the project should have coordination with park staff. At the time of the initiative, it failed to be integrated into the "Integrated Park Management Plan," which was another UN funded project in the park. Although that management plan is complete, any future ecotourism projects in the park should be incorporated into future park management plans.

Beyond coordination and capacity, the project appears to have been poorly conceived. While engagement of local communities was well-intended and desirable, it was not effective or practical to have a revolving annual management function. It was also not realistic to expect coordination to take place among community leaders in the park who were more than 12 days walk from one another. In addition, considering that there were no documents or files received by the village head (gup) during the time of management rotation, it is not clear that a plan was ever formulated in the first place to determine how revenues generated for use from the hot springs would offset capital investment, operations, and maintenance requirements. Once the UN money was exhausted, there was no money left to maintain the facilities and no incentive for community members to stay involved in the project. That is why they requested the dzongkhag to resume management of the hot springs. Given that visitors to the hot springs were not charged a fee for the entrance, it is no wonder that the project failed to produce 'tangible benefits to the local community' (UNDP 2006). Finally, since measures were not taken to secure a perimeter around the hot springs, all opportunities for controlled access and collection of user fees were destined to fail. Organized planning, monitoring, and evaluation of the project are necessary for future attempts at community-management of the hot springs. Additionally, a fee structure and a secured perimeter to control access are important to maintaining the facilities and sustaining community benefit from the project. (See 4.2.3.2).

4.2.3.2. Recommendations

Development

During the initial stages of developing the Gasa hot springs into an ecotourism project, community members can partner with other stakeholders in use of the APPA techniques described in 4.2.2. Participatory techniques like these will help community members become engaged in the project and work towards common goals for the hot springs project. Also, as

was pointed out by a member of TCB, community members should also be made aware that ecotourism will progress slowly so as not to cause a backlash of frustration or disappointment when the money generated from the venture does not meet their expectations.

Additionally, coordination with other stakeholders is essential to building capacity of community members, developing the hot springs, and increasing tourist numbers in the park. These stakeholders can train the community to manage the hot springs facilities, interact with tourists, and manage accounts (like a community development fund). ABTO, TCB, the dzongkhag and NGOs are likely partners. See rural education programs in 4.2.2.

Since the current hot springs facilities have been washed away, it is essential that proper planning be in place for its rebuilding and design. Once the waters are diverted back from the Mochu River, it will need to be understood how much water is available at any given time from the hot springs to know the capacity of the baths. The carrying capacity of the baths will ultimately determine the hot springs maintenance costs as well as the revenues that could be generated from visitors. Equally important is an analysis of how many visitors (both national and foreign) are likely to visit throughout the year and future years.

Adjoining the hot springs could be a local guesthouse or community-managed campsite. In the previous campsite, interviewees said there was not enough space, so proper planning is needed to make enough space for visitors so they do not attempt to camp outside the designated area. Another issue with the last campsite was that campers would illegally cut trees to make fires. Community members may be able to rent gas stoves or work with park staff to sell legal wood at the campsite.

Given that the hot springs are seen as national property to many national visitors, it is important that an education campaign raises awareness among Bhutanese that a small entrance fee is necessary in order to maintain the baths. In the last hot springs project, the community members were uncomfortable charging a fee to hot spring users, so the infrastructure needs to be set up that there is a single entrance with a ticket window along a secured perimeter. This will make it clearer to bath visitors that they must pay and give more confidence to the locals charging the fees.

When I asked interview participants how much nationals should pay, one suggestion I received was NU20 (about \$0.45). When I asked how much tourists should be charged for entrance to the hot springs, I got responses ranging from \$2 to \$15 USD. (See Table 11.) Using informal calculations, it was estimated that a NU20 and \$15 fee would provide six months of salary for six people. When I asked tour operators what they thought a majority of tourists

would be willing to pay as an entrance fee to the hot springs, the largest response was \$4. (See Figure 14.) This is much lower than the \$10-\$25 that tourists were willing to pay. More noteworthy, when tourists were told that the hot springs entrance fee would provide supplemental income for community members, the majority of the tourists surveyed said they would be willing to pay more. In all, the surveys indicate that tourists would be willing to pay between \$15 and \$20 or even more (See Figures 6 and 7.) However, these results are not calibrated to take into account what tourists would actually pay. Furthermore, any fee should be set to reflect the capital investment and maintenance costs of the hot springs and the carrying capacity of the baths.

Beyond fees, it is important to establish and enforce rules at the hot springs. According to interviewees, many of the Bhutanese youth who visit the baths are responsible for damaging the bath facilities or dirtying the waters. There should be a set of rules defined by the managers of the baths to protect the facilities. These rules should be posted around the bath. These rules might include showering before entering the baths, exclusion of children under 10,(e.g. certain baths), no running or roughhousing, and no food or drink while using the baths. Additionally, limits to the number of hot springs visitors would likely be important given that the previous baths were often overcrowded (See Table 11.) Interviewees suggested that a park security guard could enforce these rules.

Of the tourists I surveyed, cleanliness, price, and privacy were the most important factors in determining their willingness to pay a Gasa hot springs entrance fee. (See Table 18.) Privacy was also brought up by the US tour operator that I interviewed; who explained that in her experience Bhutanese (even those who were attempting to wait on her) would stare at her as she bathed. If there is enough water and resources to develop private baths, that would be ideal, otherwise, just raising awareness among staff of this desire for privacy could help ameliorate the problem.

Of the tour operators I surveyed, tourist requests, cleanliness, and separate baths for tourists and nationals were the most important factors determining whether or not they would bring their tour groups to the Gasa hot springs. Since cleanliness was very high for both tourists and tour operators, stakeholders should help community members develop the baths to high standards for hygiene and cleanliness. Establishing rules as suggested above could also address some cleanliness issues.

While both tour operators surveyed and participants interviewed suggested separate baths for tourists and nationals, separate baths were the second least important factor for

tourists surveyed (after handicap access). This may be because tourists do not want to be offensive by stating this desire, or it may be that the nationals are privy to more information than the tourists. Either way, tourists do like interacting with locals, so enforcing separate baths for the tourists and nationals may not be desirable. Instead, given that tourists and nationals will be paying different fees and tourists have a strong desire for privacy, there could be one large bath for one price, and other more private baths for the higher price. These private baths could also have improved décor and landscaping (the fourth most important factor to tourists). All visitors can choose which baths they prefer, with different prices for national and international visitors. Finally, in developing the hot springs there could be a bathhouse with showers, lockers, picnic tables, and a vending area where food and drinks are sold to earn money for the communities. In the future, especially if guesthouses and hotels are built, a spa would be a desirable amenity. Additionally, one way to make the hot springs more marketable is to have solar panels, grey water recycling of used water, or other environmentally-friendly concepts in harmony with ecotourism and GNH.

Management

During the 2001 ecotourism project, management was designed to rotate among gups for each of the four geogs in the Gasa dzongkhag. This was a poor concept. First of all, a rotation system is not efficient or effective, especially when records are not being kept. Secondly, two of these gups were from distant areas of the park and it was inconceivable that they could attend to the facilities with due care. Finally, the gups that were responsible for the hot springs were leaders of their local government and already had many responsibilities. Therefore, other community leaders should be identified to play a role in this process. Local leaders should not only be able to be active and committed participants in the hot springs project, but they should be willing and able to represent the interests of the community (Jackson and Wangchuck, 2001). Community leaders can be identified as those who community members seek advice from or those who have access to important relationships and resources (Jackson and Wangchuck, 2001).

Ideally, elected community leaders (providing they have formed a TMC), would manage the Gasa hot springs association. This association would include a chairman, secretary, and treasurer. The UN representative I spoke with recommends that the chairman and secretary be villagers, and the treasurer be a representative of the local government (geog or dzongkhag). Anyone with skills in book-keeping and finance that has the interests of the community in mind

would be a good fit for this position. While rotating positions is not seen as a good idea, the community members (TMC) could choose to elect these members of the association for certain term limits. This would be arranged for in the development phase.

The association would share access to a joint account, which would provide for a community development fund. This fund would be made up from the hot springs entrance fee, food and drink sales, campsite fees, rentals of gas stoves or other equipments, money from the visitor center store, and other inputs. In some ecotourism projects, community members that are hired for specific services (tour guides, cooks, etc) are responsible for submitting 10% of their wages to a community development fund. This, however, can be difficult to monitor. Since accusations of financial fraud or corruption are one of the most divisive issues in ecotourism, a community bulletin board where all decisions are posted, with the current amount in the CDF would help build transparency (Sproule, 1999).

The community (TMC if applicable) will have to jointly decide how these funds will be used and managed. They can learn from the Nabji-Korphu trail communities. In their terms of reference, the fund is put towards the following: renovation of a community *lhakhang* (temple), loans for households on individual basis, renovation of schools, maintenance of trails and campsites, payment for village TMC, compensation for livestock and crop depredation by wildlife, and for funerals. Other potential uses could be insurance for bad harvest or school scholarships for children. Checks and balances on the fund area also done in partnership with park management.

Partnerships are vital to the success of the project. During the 2001 project, there was very little capacity among community members and minimal coordination with other stakeholders. This is one of the reasons why the project failed. In order to achieve success, community members need to work with a variety of partners. To see a summary of proposed roles, see Table 30.

Table 30: Potential Roles for Stakeholders

Suggested Roles	
Stakeholder	Role
<i>Community</i>	Develop conceptual plan and design. Establish TMC and association. Take leading role in management and operation of ecotourism business. Monitor and use adaptive management of project. Cultural performers, local guides, cooks, porters, etc.
<i>Park management</i>	Integrate ecotourism into park management plans. Establish policies within the park in collaboration with TCB. Enforce policies to protect park's natural resources. Provide oversight and monitoring of facilities and management. Propose for funding and assist in infrastructure development. Monitor effect of tourism on park's natural resources. Provide security guard for hot springs/campsite.
<i>Local governments (Dzongkhag, Geogs)</i>	Submit proposals for funding. Provide oversight of maintenance and management of hot springs. Assist in checks and balances of CDF. Help respond to safety/health problems of tourists.
<i>BTC, ABTO, tourism training school</i>	Integrate JDNP and Gasa hot springs into tourism strategy. Provide funding for infrastructure and development. Provide training and education of communities for capacity development and tourism hospitality. Monitor standards of ecotourism. Market JDNP and Gasa hot springs to tour operators.
<i>Tour operators</i>	Adhere to policies and guidelines as set forth by park and other stakeholders. Market ecotourism. Appropriate tourist funds for community benefit, including hiring of local guides, cooks, porters, cultural performers, and paying campsite fees.
<i>Tourist</i>	Adhere to policies and guidelines as set forth by park and other stakeholders. Support communities when desirable (hire cultural performers, pay fees, purchase crafts, etc).

4.3 Policy Implications for Ecotourism

In order to improve the prospects of ecotourism in JDNP, there are a number of policies that the government can implement both on the national level and at the park. The following is a summary of policy suggestions:

Tourism policy (TCB)

While the high tourism tariff is responsible for minimizing impacts of tourists on the culture and environment in Bhutan, this tariff constrains the number of tourists that would visit protected areas and limits the length of their stay. Since the 1997 abolishment of the lower tariff for trekkers, the percentage of trekkers among tourists dropped from 36% in 1996 to 4% in 2007 (Garung and Seeland, 2008). This drop is particularly evident given that trekkers have increased fivefold in a competing trekking destination in nearby Nepal. While the lower tariff

was being 'misused' by tour operators, leading to the abolishment of that policy, TCB should reconsider implementing a lower tariff for tourists that trek, visit protected areas, or camp, using lessons learned from prior failures. While it is commendable that the tariff limits the number of tourists in Bhutan for environmental and social reasons, there are also substantial gains to a lower tariff for trekkers or visitors to national parks. If this tariff is lowered, more tourists would be willing to trek or camp in remote areas and the duration of their trip would likely extend. This would mean more tourism-related economic benefits to rural communities, which would help address issues of rural-urban flight and poverty. In JDNP, there would also be less park staff-inhabitant tension and hopefully more protection of natural resources.

Invest in JDNP (TCB, ABTO, etc)

In order to attract more tourists to JDNP, there needs to be more infrastructure development in the park, including guesthouses, proper campsites, completion of the road to Gasa, and improved hot springs facilities. (See Section 4.2.3). Additionally, major investment for rural training programs is needed to build the capacity of community members to manage ecotourism projects and to teach them tourism hospitality.

National Ecotourism Strategy (NCD, ABTO, TCB, etc)

The last national tourism strategy workshop was held in 2001, and while NCD continues to incorporate ecotourism into its programs, there has not been a national emphasis on ecotourism since then. According to my interviews, TCB and ABTO no longer use the terms 'ecotourism,' but prefer nature-based or sustainable tourism instead. While it is true that the term 'ecotourism' has often been misused or 'watered down' over the years, ecotourism has a strong emphasis on community involvement whereas the other terms do not. TCB and ABTO should embrace community participation and benefit from tourism since this will ultimately ensure their stewardship of the country's natural resources. Ecotourism should not be abandoned.

Park enforcement and fees (NCD, park staff)

The park staff does not have enough resources to effectively perform their duties. They cite difficulties monitoring and enforcing park rules. Given that the park would like to become more self-sufficient, it is advisable that NCD implement park fees for tourists. Currently, tour

groups need only show a park entrance permit at check points along major roads. However, an alternative or additional requirement might be that tour groups must pay for a ticket upon entering the park. In JDNP, this is tricky considering that many tourists enter the park via trekking routes and not necessarily through Damji, where the park headquarters is located. However, ranger stations like Soe and Rimchu can serve as other posts to sell entrance tickets. Despite claims that tourists are already paying too much with their tariffs, survey results suggest that tourists might be willing to pay \$25 for a park entrance fee at JDNP. One person even commented that he/she would be willing to pay \$500 if it meant seeing a snow leopard. My point is that tourists are willing to pay a park entrance fee, and this could help the park improve programs. Alternatively, it could help the management support ecotourism initiatives in the park. Additionally, having an entrance fee or a reason for tourists to stop at visitor centers establishes a stronger connection between tour operator and tourists to the park. Having tourists stop at the visitor center can also educate tourists on some of the programs and initiatives in the park.

Tour operator accountability

According to a study by Garung and Seeland (2008), 55% of tour operators they surveyed were concerned about the negative impacts of tourism on the environment. Their concerns centered on the implementation of environmental policies and codes of conduct. Tour operators (and tourists) can be influenced to increase their adherence to rules by raising their accountability. A suggestion made by a tour operator I interviewed was a checklist program. This checklist would contain the common rules that tour operators must abide by to safeguard the environment and culture of Bhutan. (See Appendix F.) Since tourists usually travel in and out of the country by plane, they can be given a small note card with the checklist of rules upon arrival at the airport. They will be advised to read this checklist, monitor their tour operator's activities, complete the card, and submit it at the airport when they leave the country. Since they will also provide the name of their tour operator, the government will be able to keep track of which companies are adhering to the rules and which are not. This will place pressure on tour companies to adhere to these rules.

5 Discussion and limitations

During an interview with a representative of the Tourism Council of Bhutan, he stressed that community members' expectations of tourism are too high. He stated that the economic benefits of ecotourism do not provide a full income, but rather supplemental incomes to community members. Given the infancy of ecotourism in Bhutan and the current tourism policy, this may be true. However, with coordinated efforts among all stakeholders, I believe ecotourism has the potential to provide substantial benefits to rural communities. The Nabji-Korphu trail pilot project, initiated in 2006 provided over \$10,000 to 210 households from the 81 tourists it received in the second year of operation. This is likely to improve as the communities become better equipped to manage tourists and as ecotourism becomes more marketed and developed in Bhutan. It is important to recognize that lasting results may take some time.

Also, when ecotourism is more established in JDNP and Bhutan in general, it will be important to assess whether ecotourism is in fact leading to conservation of natural resources. For example, the Sagarmatha project in Nepal aimed to reduce overgrazing by increasing the incomes of yak herders through alternative means. Unfortunately, the project resulted in the herders investing in more yaks, which exacerbated the overgrazing problem (RGoB n.d.). Therefore, it is important to monitor the behaviors of community members involved in ecotourism and to monitor the impact that additional tourists are having on natural areas. If it is shown to have a negative impact, it might just be that the ecotourism is not being implemented correctly and efforts are needed to meet the criteria as posed by Martha Honey.

One major limitation to my study is that due to limited time in Bhutan and Jigme Dorji National Park, I was unable to gather as much information as I would have liked to. There were no park management documents ready for me to review and no information could be sent to me after-the-fact since there was no internet. Additionally, I lacked information from community members living in the park. For instance, I was unable to speak to key people involved in the Gasa Ecotourism Association. Instead, I relied on secondary sources for how the former ecotourism project was managed. It is possible that the data I gathered is inaccurate or missing important information. Given that there were no documents kept by GEA, the park, and only one short document kept by the UN, information concerning the project was lacking.

Regarding the surveys, it is possible that they were difficult for the Bhutanese tour operators to comprehend. While they all speak English, some have a better grasp than others.

For example, one question on the survey asked tour operators to select only 1-2 options, but some selected many more. While Survey Monkey gave the option of only allowing one response, Survey Monkey did not allow up to two responses.

I also did not ask tour operators what role they play in the tour company, which would have been important to ask. This is because someone who guides tourists might have different information than an administrative person who oversees the tour agency. This was an apparent issue as there were two representatives for two tour companies and sometimes they gave very different responses.

It may also be the case with the tour operator survey that the participants were 'telling me what I wanted to hear.' For instance, in my interviews with park staff, I was told that tour operators rarely pitch tents in designated campsites in the park, despite that it is illegal not to. Based on my survey results, the tour operators would have me believe that they almost always camp in designated areas. Additionally, participants were able to go back and forth among the questions and it is possible that they adjusted responses based on later questions in the survey. For instance, when I asked tour operators what phrases were consistent with their understanding of ecotourism, many of the top responses had to do with community participation, rather than the obvious 'travel to natural areas.' Since many of my questions were phrased around community benefit and participation, it is possible they adjusted their responses.

Also, despite the permission I received from online forums to distribute the surveys to other members, the e-mail and link to the survey were marked as 'spam' by enough people that my accounts were terminated with Trip Advisor and Virtual Tourist. This not only made it difficult to contact many tourists, but it was unclear to me how many people were able to read the message I distributed before it was deleted by the program.

Finally, regarding the tourist survey, a few tourists complained that I should have had a map of the protected areas on more than just one page of the survey. This may have led to difficulties answering some of the questions relating to protected areas.

6 Conclusion

Bhutan's enlightened policies and its unique geography, biodiversity, and culture has positioned it to participate in and benefit from ecotourism. Bhutan and JDNP in particular, have the requisite attributes and potential for a world renowned ecotourism sector. This not only stands to benefit the national government of Bhutan, but will generate much needed revenues for parks, local governments, and rural communities. It also has the potential to create needed jobs, particularly for underemployed youth.

While the development and eventual success of ecotourism will likely take some time to be fully realized, ecotourism can be a way to resolve tension between economic and conservation goals in the country. Similarly, with proper coordination, guidance, and planning, the community members in Jigme Dorji National Park should be incentivized to conserve the park's natural resources in an effort to earn income from ecotourism to the park. This should be monitored to assess if ecotourism is indeed having this effect on the park's resources.

Bhutan's national tourism policy should be reviewed and improved. Specific recommendations include:

- Relaunch the national ecotourism workshop, last held in 2001. The workshop should be considered a regular input into the government's planning and budgeting process. It should involve all stakeholders and meetings should be held at the national, regional, and local level.
- With other stakeholders, identify and implement appropriate infrastructure and other improvements in JDNP and other parks; investments that are required to realize ecotourism potential.
- Place special emphasis on community participation and engagement in ecotourism programs as it will ensure sustainability for the program.
- Develop stakeholder awareness and training programs so the potential of ecotourism may be realized.
- Develop a lower tariff for trekkers and other tourists venturing into remote areas of the JDNP and other parks.
- Identify appropriate entry fees for JDNP and other parks as well as appropriate user fees for specific activities (e.g Gasa hot springs).

For ecotourism to function properly, the benefits of ecotourism to community members should outweigh the costs of exploiting natural resources. In JDNP, collective efforts are needed among TCB, ABTO, NCD, local governments, tour operators, and community members to build capacity, provide training, develop infrastructure, and provide marketing of the ecotourism product. In order for ecotourism to succeed, leadership is needed among all stakeholders.

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Appendix A

Interview questions:

- 1) What are issues in the park?
- 2) How do tourists currently access or enter the park and what procedures are necessary?
- 3) In what ways are community members currently involved in tourism in JDNP?
- 4) What are tourists typically interested in?
- 5) What are the negative impacts of tourism?
- 6) What are the natural, cultural, and recreational assets in JDNP for tourists?
- 7) Is the local community supportive of tourism?
- 8) What's the best way to market ecotourism in JDNP or link tour operators to the park?
- 9) How can tourism in JDNP involve or benefit local communities?
- 10) What were the major failures and successes of the Gasa hot springs project led by the Gasa Ecotourism Association? What led to the results?
- 11) What were the lessons learned from the former UN-funded ecotourism project?
- 12) What should be the various roles and responsibilities of stakeholders?

APPENDIX B

Survey for tourists*

1. Please select your gender.

Female

Male

2. Please select your age.

18 – 25

26 – 35

36 – 45

46 – 55

56 – 65

66 +

3. Please estimate your combined household annual income.

Under \$30,000

\$30,000 – \$54,999

\$55,000 – \$79,999

\$80,000 – \$149,999

\$150,000 – \$499,999

\$500,000+

4. What is your nationality?

5. What was the name of the tour operator you worked with to travel to Bhutan? Please provide Bhutanese and US operators if applicable.

* Note: Could not be perfectly formatted for the purposes of this report. Some Questions may be excluded.

6. Please select statements that are true about your tour operator.

- Please select statements that are true about your tour operator. Tour operator advertised ecotourism.
- Tour operator advertised sustainable tourism.
- Tour operator advertised nature-based tourism.
- Tour operator did not advertise or emphasize a particular type of tourism.
- Not sure.
- Tour operator advertised another form of tourism:

2. More about your trip...

1. Please select the activities you participated in or places you visited during your stay in Bhutan.

- | | | |
|--|---|---|
| <input type="checkbox"/> Ecotourism | <input type="checkbox"/> Volunteering | <input type="checkbox"/> Rock or ice climbing |
| <input type="checkbox"/> Visits to Buddhist sites | <input type="checkbox"/> Research | <input type="checkbox"/> Bicycling |
| <input type="checkbox"/> Cultural performances | <input type="checkbox"/> Bird watching | <input type="checkbox"/> Horseback riding |
| <input type="checkbox"/> Visitor center | <input type="checkbox"/> Wildlife viewing | <input type="checkbox"/> Camping |
| <input type="checkbox"/> Guided tour by local (in rural area) | <input type="checkbox"/> Mushroom picking | <input type="checkbox"/> Stone baths |
| <input type="checkbox"/> Museum | <input type="checkbox"/> Medicinal plant tour | <input type="checkbox"/> Hot springs |
| <input type="checkbox"/> Shopping | <input type="checkbox"/> Festival | <input type="checkbox"/> Spa (massage, etc) |
| <input type="checkbox"/> National Institute for Traditional Medicine | <input type="checkbox"/> Hiking | |
| <input type="checkbox"/> Spiritual education | <input type="checkbox"/> Rafting | |
| <input type="checkbox"/> Other (please specify) | | |

2. Were there any activities that you wish you could have participated in during your stay? If so, please list them.

3. Which were your top three favorite activities?

Please select activities

1st (best)

2nd

Please select activities

3rd

Other(s) (please specify):

4. Which were your three least favorite activities?

1st (least favorite)

2nd

2nd Please select activities

3rd

3rd Please select activities

Other(s) (please specify):



1. While you were in Bhutan did you visit any protected areas?

Yes

- No
- Not sure. Please explain.

1. What are the reasons why you did not visit a protected area? Please mark all that apply.

- Limited time.
- Tour operator chose the itinerary.
- Lack of adequate accommodation.
- No need to visit protected areas, since non-protected areas provide the same opportunities.
- I do not know what protected areas are.
- No interest to visit protected areas.
- Not a high priority.
- Other (please specify):

1. What was the length of your stay in the protected area(s)?

2. Which of the following areas did you visit and what activities did you participate in?

	Buddhist sites	Community visits	Ecotourism	Bird watching	Wildlife tour	Plant tour	Cultural performances	Shopping	Visitor center	Volunteering	Bicycling	Hiking	Camping
Bomdeling Wildlife Sanctuary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jigme Dorji National Park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jigme Singye Wangchuck National Park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Khaling Wildlife Sanctuary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Phibsoo Wildlife Sanctuary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Royal Manas National Park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sakteng Wildlife Sanctuary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thrumshingla National Park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain the other activities:

1. How long was your overall trip to Bhutan?

- 1 – 4 days

- 5 – 7 days
- 8 – 10 days
- 11 – 14 days
- 15 – 18 days
- 19 – 28 days
- 28 days +

2. What is your opinion of the amount of money you paid for your trip to Bhutan?

- It was highly overpriced
- It was a slightly overpriced
- The price for the value was just right
- It was slightly underpriced
- It was very underpriced

3. Please estimate in US dollars how much money you spent in an average day in Bhutan on the following items (this amount should exclude the daily tariff paid to tour operators).

Food	<input type="text"/>
Crafts/souvenirs:	<input type="text"/>
Internet/Email	<input type="text"/>
Entrance fees	<input type="text"/>
Other	<input type="text"/>

1. The management of Jigme Dorji National Park is interested to attract tourists and tour operators by way of ecotourism. Imagine getting the opportunity to enter Jigme Dorji National Park in Bhutan. If you enter, you will be required to pay an entrance fee separate from your daily tourist tariff. What would be the maximum fee (in US dollars) that you would be willing to pay for your personal enjoyment of the park? Please choose one of the following:

- \$5
- \$10
- \$25
- \$50
- I would not be interested to enter.
- Other amount (please specify):

2. Now imagine that you have the option of bathing in natural hot springs in the park. What factors would be the most important in determining your decision to pay for and enjoy the hot springs? Please select all that apply.

- Price of entrance fee
- Cleanliness of tubs

- Privacy offered
- Separate baths for tourists and nationals
- Separate baths for families/children and adults
- Variety of bath temperatures
- Décor and landscaping
- Handicap access
- Spa (massage) available
- I would not be interested in the hot springs.
- Other (please specify):

3. Imagine there is no fee to enter Jigme Dorji National park, but you would need to pay to enter Gasa hot springs in the Park. This fee would not be covered by the daily tourist tariff. What would be the maximum amount (in US dollars) that you would be willing to pay for your personal enjoyment of the hot springs?

- \$5
- \$10
- \$25
- \$50
- \$75
- Other (please specify):

4. Now please imagine that the entrance fee to the hot springs will also provide some supplemental income for the community inhabiting the park. Does that change how much you would be willing to pay?

- Yes
- No

1. How much MORE (in US dollars) would you be willing to pay for the entrance fee? (This would be in addition to the amount asked in the previous question.)

- \$5
- \$10
- \$20
- \$50
- Other (please specify):

APPENDIX C

Survey for tour operators*

1. Name of your tour company.

Name of your tour company.

2. How long have you been operating as a tour agency in Bhutan?

How long have you been operating as a tour agency in Bhutan?

3. How many tourists did you serve in 2009?

How many tourists did you serve in 2009?

4. Please mark the following boxes if they represent the type of tours you offer to tourists:

- Please mark the following boxes if they represent the type of tours you offer to tourists: Ecotourism
- Nature-based tourism
- Sustainable tourism
- Community-based tourism
- Adventure tourism
- Other (please specify):

1. Which of the following descriptions are consistent with your understanding of the term "ecotourism." Please mark all that apply.

- Travel to natural areas.
- White-water rafting.
- Hiking.
- Birdwatching.
- Teaching tourists about local animals and plants.
- Tour guide explains to tourists the proper way of disposing trash.
- Minimizing environmental impact.
- Tourists volunteer for environmental causes.
- Tourism provides environmental awareness to communities.
- Tourism supports human rights.
- Tourism generates money to pay for conservation.
- Tourism generates money to benefit local community.
- Tourism brings rural development to communities.
- Tourism empowers local people.
- Other (please specify):

* Note: Could not be perfectly formatted for the purposes of this report

2. Does your tour company bring tours to protected areas in Bhutan? If so, please mark the protected areas where your tour company has already brought tourists.

- Bomdeling Wildlife Sanctuary
- Jigme Dorji National Park
- Jigme Singye Wangchuck National Park
- Khaling Wildlife Sanctuary
- Phibsoo Wildlife Sanctuary
- Royal Manas National Park
- Sakteng Wildlife Sanctuary
- Thrumshingla National Park
- No. My tour company does not visit protected areas.
- We offer these trips, but have not brought tourists yet. Please explain.

3. Please mark the activities that tourists can participate in for each protected area where you advertise tours.

	Buddhist sites	Bird watching	Wildlife tour	Plant tour	Shopping	Cultural performances	Ecotourism	Community visits	Bicycling	Camping	Hiking	Rafting	Visi cen
Bomdeling Wildlife Sanctuary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jigme Dorji National Park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jigme Singye Wangchuck National Park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Khaling Wildlife Sanctuary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Phibsoo Wildlife Sanctuary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Royal Manas National Park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sakteng Wildlife Sanctuary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thrumshingla National Park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other(s) (please specify):

1. Imagine that you are bringing a group of tourists to a park or protected area. In your opinion, what would be the highest amount (in Ngultrum) that the majority of tourists would be willing to pay for this entrance fee? This fee would be in addition to their daily tariff.

- 100 Nu
- 200 Nu
- 450 Nu
- 1,150 Nu
- 2,300 Nu

Other (please specify):

2. If you visit protected areas, how often do you stop at visitor centers when you arrive?

- Never
- Rarely
- Sometimes
- Often
- Always
- Does not apply

1. Why do you choose not to bring tourists to visitor centers? Please mark all that apply.

- No visitor centers are available where I visit.
- I prefer to keep driving to my final destination.
- It is not required.
- There is no food or drink available to buy at visitor centers.
- There are no bathrooms available.
- Educational exhibits are not worth visiting.
- I do not require any information from the visitor center.
- Tourists choose not to stop.
- Other (please specify):

1. Why do you stop at visitor centers?

- I do not stop at visitor centers.
- To get information.
- For tourists to see educational exhibits.
- Bathroom stop.
- Possibility to buy food and drinks.
- Must stop for administrative reasons (pay fee, give paperwork, etc).
- Other (please specify):

1. Does your tour company do trekking expeditions (hiking/camping over a course of a few days)?

- Yes.
- No.



Not Sure (please specify):

2. How often do you hire local community members for tours or trekking trips? Please rate for each of the following:

	Never	Rarely	Sometimes	Often	Always
Porters:	Porters: Never <input type="radio"/>	Rarely <input type="radio"/>	Sometimes <input type="radio"/>	Often <input type="radio"/>	Always <input type="radio"/>
Cooks:	Cooks: Never <input type="radio"/>	Rarely <input type="radio"/>	Sometimes <input type="radio"/>	Often <input type="radio"/>	Always <input type="radio"/>
Dance performers:	Dance performers: Never <input type="radio"/>	Rarely <input type="radio"/>	Sometimes <input type="radio"/>	Often <input type="radio"/>	Always <input type="radio"/>
Guides:	Guides: Never <input type="radio"/>	Rarely <input type="radio"/>	Sometimes <input type="radio"/>	Often <input type="radio"/>	Always <input type="radio"/>
Story tellers:	Story tellers: Never <input type="radio"/>	Rarely <input type="radio"/>	Sometimes <input type="radio"/>	Often <input type="radio"/>	Always <input type="radio"/>

Comments:

3. In your opinion, what would be the biggest concern in hiring local porters to carry tourists' belongings? Please select only 1-2 of the following options.

- I would have no concerns.
- Too expensive.
- Theft.
- Lazy or bad work ethic.
- Inability to speak tourists' language.
- Not consistently available to work when needed.
- Difficult to contact (phone email, etc.).
- Not sensitive to foreign needs and customs.
- Picking up and delivering on time.
- Logistics (too difficult to arrange).
- Other (please specify):

4. In your opinion, what would be the biggest concern in hiring local cooks to cook for your tourists? Please select only 1-2 of the following options.

- I would have no concerns.
- Too expensive.
- Theft.
- Lazy or bad work ethic.
- Inability to speak tourists' language.
- Not consistently available to work when needed.

- Difficult to contact (phone email, etc.).
 - Not familiar with western cuisine and dietary needs.
 - Bad hygiene and sanitary techniques.
 - Timeliness (arriving and preparing meals on time).
 - Logistics (too difficult to arrange for hire of local).
 - Other (please specify):
-

5. In your opinion, what would be the biggest concern in hiring local guides to guide your tourists in protected areas? Please select only 1-2 of the following options.

- I would have no concerns.
 - Too expensive.
 - Theft.
 - Lazy or bad work ethic.
 - Inability to speak tourists' language.
 - Not consistently available to work when needed.
 - Difficult to contact (phone email, etc.).
 - Not familiar with tourist's culture and customs.
 - Not enough expertise and knowledge relating to the tour.
 - Timeliness (arriving and leading tours on time).
 - Logistics (too difficult to arrange).
 - Other (please specify):
-

6. Does your tour company bring tourists camping?

- Yes.
- No.
- Sometimes (please explain):

1. Do the tourists camp in designated (official) camping areas?

- Yes.
 - No.
 - Sometimes (please explain):
-

2. When you bring tour groups camping, what would be your minimal criteria when paying for the use of an official campsite? Please mark all that apply.

- I do not worry about the criteria.
- A camping area surrounded by fence.
- Flat land.
- Access to water.
- A place to make a fire.
- Access to a kitchen.
- Access to clean toilets.
- Other (please specify):


1. Please imagine that your tour company will bring tourists to villages or rural areas. If applicable, please mark the following ways that the tour company would be willing to help the community members in these villages earn money.

- My tour company would not be interested to help community members earn money.
- Encourage tourists to buy handicrafts made by community members.
- Have tourists stay in local guesthouses.
- Hire locals for porters.
- Hire locals for guides.
- Hire locals as cooks.
- Hire locals to do cultural and dance performances.
- Pay a camping fee to support communities.
- Have tourists pay a park entrance fee (when entering a park) to support community members
- Encourage tourists to volunteer in communities.
- Other (please specify):

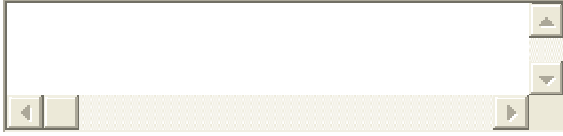
2. In your opinion, what types of cultural performances do tourists enjoy or want to see on their tours in Bhutan?

3. Have you brought tourists to hot springs? If yes, please list which hot springs you have visited.

4. Which places in Bhutan have you brought tourists that you consider ecotourism destinations?



5. Based on your experience, do tourists want to volunteer on their trips to Bhutan? If so, what kind of volunteering experiences do they enjoy or request to do while in Bhutan?



6. Which trekking routes or trails do you bring tourists to hike?



1. Have you ever personally visited the Gasa hot springs?

- Have you ever personally visited the Gasa hot springs? Yes.
- No.
- Not sure.

2. What are the most important factors that would determine whether or not you bring tourists to the Gasa hot springs? Mark all that apply.

- Tourist makes a special request to go.
- Price of entrance fee.
- Cleanliness of tubs.
- Privacy offered.
- Separate baths for tourists and nationals.
- Separate baths for families/children and adults.
- Variety of bath temperatures.
- Décor and landscaping.
- Handicap access.
- Spa (massage) available.
- Hotel accommodation nearby.
- I am not familiar with the Gasa hot springs.

3. What would be the maximum fee (in Ngultrum) that a majority of tourists would be willing to pay to use Gasa hot springs?

- 100 Nu

- 200 Nu
- 450 Nu
- 1,150 Nu
- 2,300 Nu
- Other (please specify):

1. What in your opinion are the best tourist attractions in Jigme Dorji National Park? Mark all that apply.

- Trekking routes (Snowman trek, Jomolhari, etc)
- Bird watching
- Religious sites (Visit to Gasa monastery, etc)
- Indigenous communities (Layap, Lunaps, etc)
- White water rafting on Phochu and Mochu rivers
- Gasa hot springs
- JDNP visitor center and park headquarters
- Mushroom picking
- Medicinal plants tourism
- Horseback riding
- Cultural performances (visits to a community)
- Volunteering (schools and communities)
- I am not familiar with Jigme Dorji National Park
- Other (please specify):

Appendix D

List of tour operators in Bhutan:*

A H K E Adventure Travel	Bhutan Holiday Tour	Bhutan Visit
Absolute Bhutan Travel	Bhutan Home Adventure Tour & Travel	Bhutan Wilderness Travels
Access Bhutan Tours & Treks	Bhutan Horizons	Bhutan Yodsel Tours & Treks
Adventure Bhutan Travel	Bhutan Journeys	Bhutan Yuda Tours & Treks
All Access Bhutan	Bhutan Karma Tours and Treks	Bhutan-Incoming Tours and Treks
ALL BHUTAN CONNECTION (ABC, Tours, Treks & Int'l Air Ticketing)	Bhutan Kuengarawa Tourism, Treks And Travel	Black Mountain Tours & Treks
Alpine Bhutan Travel (Service)	Bhutan Lakhor Tours and Treks	Blue Poppy Tours and Treks
Amitabha Tours	Bhutan Land of Happiness Tours	Chanshe Norbu Tours and Treks
Ancient Bhutan Tour	Bhutan Lha-yul Tours and Travels	Classic Bhutan Tours & Treks
Antique Expeditions Bhutan	Bhutan Maitriya Tours and Treks	Destiny Bhutan
Atlas Tours & Travels	Bhutan Majestic Travel	Dharma Adventures Bhutan
Authentic Bhutan Tours	Bhutan Men-Lha Adventures	Diethelm Travel Bhutan
"Bhutan Butter Lamp Tours (BBLT)"	Bhutan Mountain Holiday	Discovery Bhutan Inc.
Barma Cultural Tours & Treks	Bhutan Mystical Tours & Adventures	Divine Trails
Bhutan "Your Way" Tours and Travel	Bhutan Land of Happiness Tours	DondrupTours & Treks
Bhutan Abbot Tours and Travels	Bhutan Lha-yul Tours and Travels	Dragon Heart Tours and Treks
Bhutan All Seasons Tours & Treks	Bhutan Maitriya Tours and Treks	Dragon Trekkers and Tours
Bhutan Amigos Expedition	Bhutan Majestic Travel	Dream Adventure Travel
Bhutan Aries Tours & Treks	Bhutan Men-Lha Adventures	Druklink holidays
Bhutan Bigfoot Trekkers (Tours)	Bhutan Mountain Holiday	Drukyl Bhutan Tours and Treks
Bhutan Birding & Heritage Travels	Bhutan Mystical Tours & Adventures	Etho Metho Tours & Treks Pvt. Ltd.
Bhutan Crown Adventures	Bhutan Nature & Culture Adventures	Exotic Destinations
Bhutan Dhenzang Travel	Bhutan Nomad Adventures	Experience Bhutan Travel
Bhutan Door Adventure	Bhutan Nortor Adventures	Gangkar Adventures & Expeditions
Bhutan Dorji Holidays	Bhutan Nyinzer Expeditions	Geo-cultural Tours and Treks
Bhutan Dragon Adventures	Bhutan Sangha Tours and Travels	Glimpses of Bhutan
Bhutan Dukar Tours and Travels	Bhutan Scenic Tours	Good Karma Travels
Bhutan Eco Tours and Adventure	Bhutan Sonam Tours	Happy Bhutan Adventures
Bhutan Eco-Expedition	Bhutan Takin Trails	Happy Holidays
Bhutan Eden Tours	Bhutan Taksang Tours and Travels	Himalayan Adventures
Bhutan Everest Tours & Treks	Bhutan Today Tours and Treks	Himalayan Dragon Tours and Treks
Bhutan Excursion	Bhutan Tourism Corporation Ltd.	Holiday in Bhutan Tours and Travels
Bhutan Exodus Tours	Bhutan Traditional Holidays	Jojos adventure BHUTAN
Bhutan Expeditions	Bhutan Travel Adventures	Journey to Bhutan Tours & Travels
Bhutan Festivals Tours & Treks	Bhutan Travel Bureau	Karma Journeys
Bhutan Footprints Travel & Adventures	Bhutan Travel Connection	Keys to Bhutan Adventures and Holidays
Bhutan Gateway Travel	Bhutan Travel Designers	Khachap Tours & Treks
Bhutan Gayul Tours	Bhutan Travel Planner	Khamsa Tours & Treks
Bhutan Greenland Expeditions	Bhutan Travel Service	Lhomen Tours, Travels & Trekking
Bhutan Herbal Tours	Bhutan Travellers	Lotus Adventures Bhutan
Bhutan Himalayan Holidays	Bhutan Valley Adventures	Maebar Tours & Treks

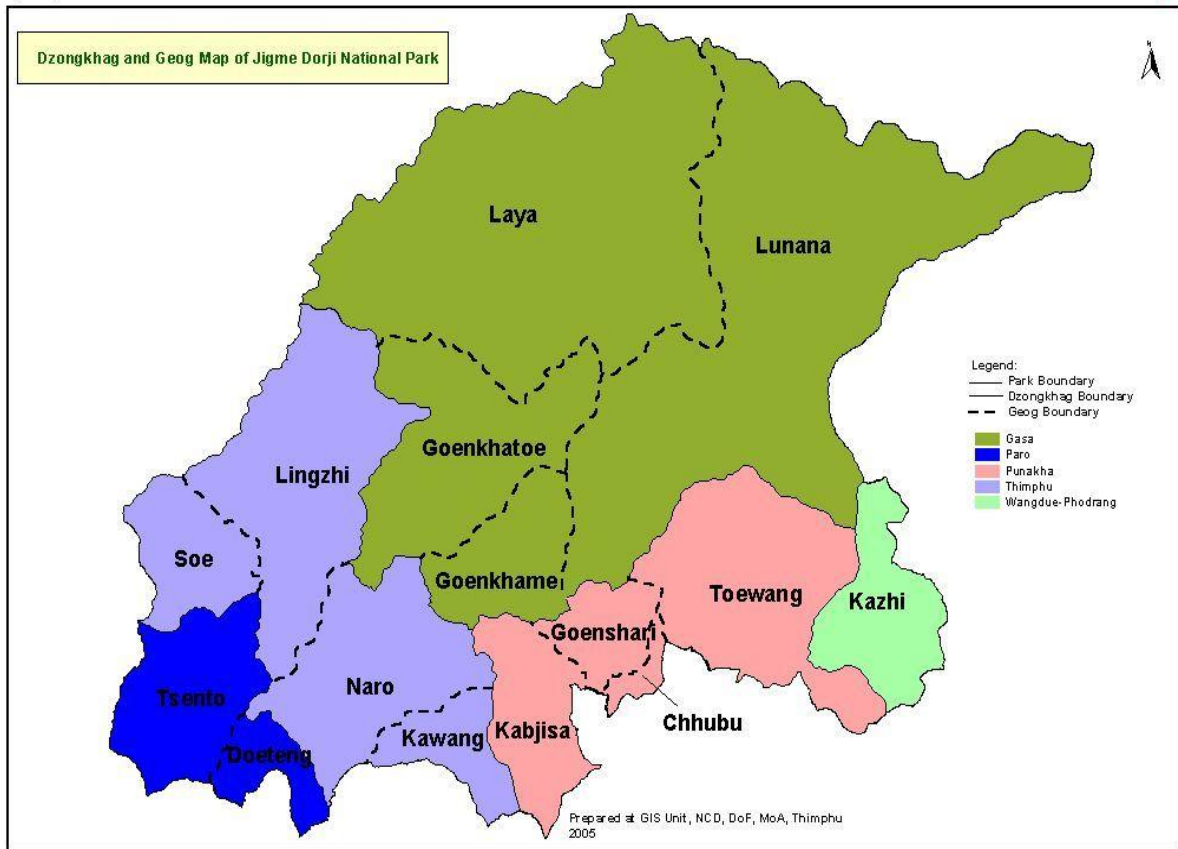
* As advertised on TCB website.

List of tour operators in Bhutan (continued):

Medieval Bhutan Tours	Sambara Tours	Tsenden Travel Service
Migae Adventure Travel	Samphel Norzang Excursions	TTT Tshering Tours and Treks
Mystic Bliss Travels	Shangri-La Bhutan Tours & Treks	Vajra Guru Spiritual Tour & Travels
Namdra Adventure Tours And Treks	Silver Dragon Tours & Treks	Village Tours and Treks
Namgay Adventure Travels	Sky Kingdom Adventures	Wangchuck Tours & Treks
Nangkor Tours And Travels	Sky Net Adventures	Windhorse Tours,Treks & Expeditions
Norbu Bhutan Travel Pvt. Ltd	Snow Leopard	Xplore Bhutan
Om Travenza	Snow White treks and tours	Yak Adventure Travel
Padmasambhava Tours and Treks	Sophun Tours & Treks	YANA Expeditions, Inc.
Phaiga Tours	Sunrise Expedition	Yangphel Adventure Travel
Phuensum Norgay Tours & Treks	Tashi Gongphel Tours	Yarkay Tours and Treks
Prayer Flags Tours and Adventure	Thoesam Tours & Trekking	Yeoong Travel
Rainbow Tours and Treks	Thutop Tours And Treks	Yeti Homeland Adventures
Raven Tours and Treks	Trans Himalaya Tours and Trekking	Zhidey Bhutan Tours & Treks
Sacred Himalaya Travel	Transcend Travellers - Bhutan & Beyond	Zigkor Tour & Travels
Sakten Tours And Treks	TravelClub Bhutan	Zomlha Bhutan Tours

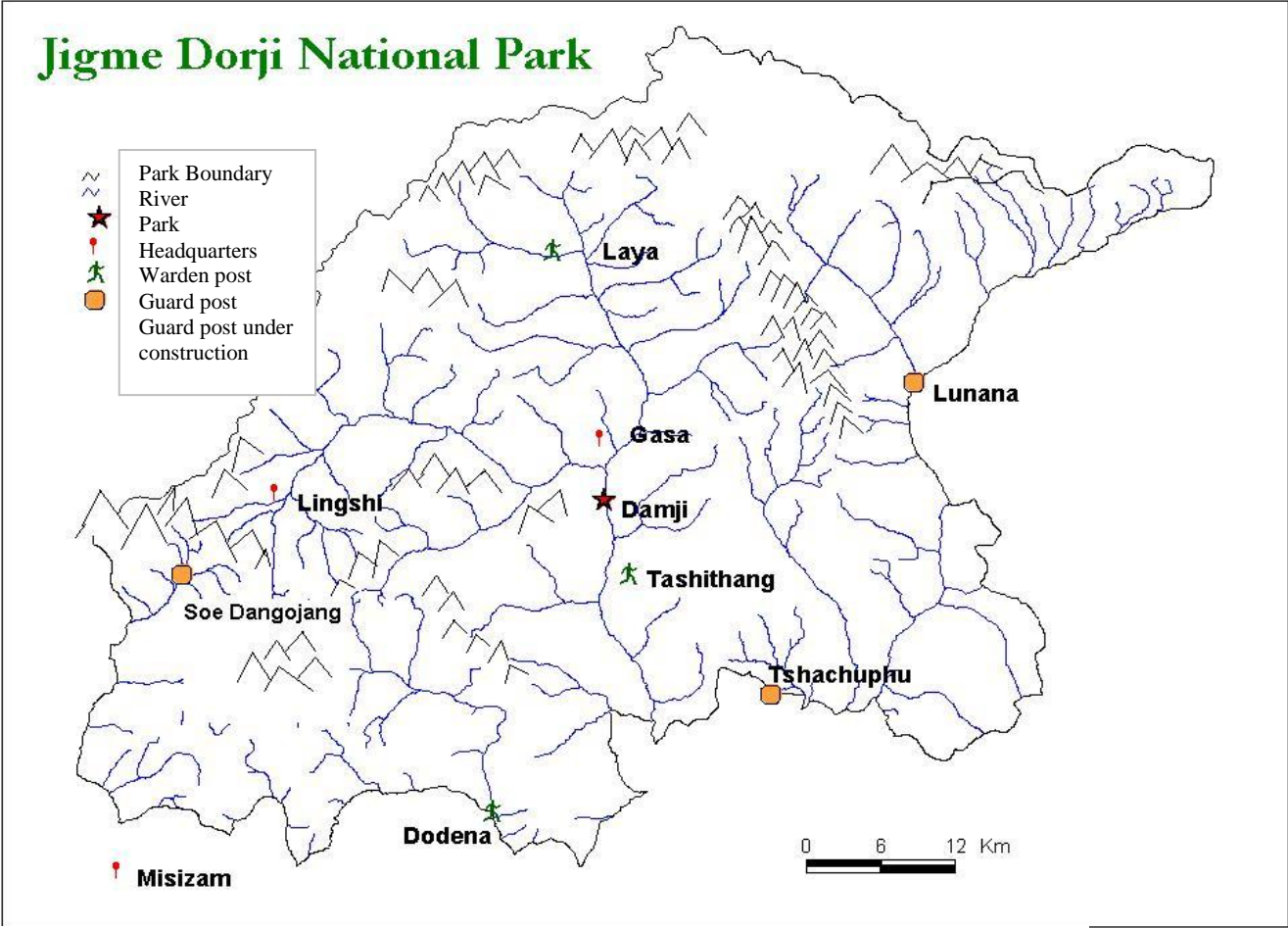
Appendix E

Map 1: The Geogs and Dzongkhags within Jigme Dorji National Park



Source: Sonam Zangpo, JDNP Park Staff

Map 2: Jigme Dorji National Park & Park Infrastructure



Source: Sonam Zangpo, JDNP Park Staff

Appendix F

Park Rules to abide by (for checklist):

Park Rules, in accordance with the Forests and Nature conservation Act of 1995 and Forests and Nature Conservation Rules and Regulations 2000, 200 (adapted from RGoB, 2009a).

- a) Core zone:
 - Only government officials may access

- b) Multiple use zone
 - Groups should be limited to 11 persons
 - One must have a permit to enter
 - Use only designated campsites
 - Video and sound recording of wildlife requires a special permit from RGoB
 - Wildlife photography is not permitted during night hours
 - Hunting and killing wildlife is prohibited
 - Collection or purchase of any type of wildlife or wildlife part is illegal
 - Do not disturb wildlife habitat or tease or feed animals
 - Collection of fuel wood is not permitted
 - Carry your litter out with you
 - Bury biodegradable and human waste in pits

- c) Social/cultural aspects
 - Be sensitive to the local culture, belief, religious sites and tradition. Inappropriate dress and/or behavior (i.e. public displays of affection) may offend and influence traditions and attitudes of local people
 - Do not purchase or encourage the sale of antique cultural artifacts
 - Ask permission to take photographs of people and cultural heritage sites
 - Smoking inside the lhakhang and chorten is prohibited
 - Do not encourage begging