

Homestays as Livelihood Strategies in Rural Economies:  
The case of Johar Valley, Uttarakhand, India

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**Abstract**

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Munsiyari and Sarmoli, gateway villages to the Johar Valley, are the last points with motor vehicle access. This affords the villages a level of connectedness that the other villages in the valley are not provided. Consequently, Munsiyari and Sarmoli are home to multiple shops, tourist accommodations, and restaurants and boast the largest population in the Valley. One type of tourist accommodation found in Sarmoli is the homestay. It differs from typical accommodations by offering the traveler a unique experience that combines ones basic needs (food, shelter) with the host's culture. The homestay model in Sarmoli has empowered the local community and sparked my curiosity to determine if a homestay model could be a suitable livelihood strategy used throughout the Johar Valley. During field work I found that a few guesthouses currently exist, but a homestay program has not been developed.

This thesis created an evaluation matrix that can be used to determine the suitability of developing a homestay program. The matrix is then applied to a subset of villages in the Johar Valley. The tool developed through this thesis can help make decisions about the suitability of homestays not only in the Johar Valley, but also in other remote locations in India.

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## **DEDICATION**

To my nephew Emmett Ryan Macek.

## **1.0 Introduction**

This thesis explores the factors one might consider when determining if a homestay is an appropriate livelihood development strategy in rural and remote mountain locations. The topic came about while participating in an exploration seminar in the Johar Valley through the University of Washington (UW). Preparations for the trip taught us about the current economic conditions of the valley and its developing ecotourism industry. The majority of our efforts were focused on examining the Johar Valley and a subset of villages located there.

The UW exploration seminar teams stayed in a homestay in Sarmoli, a gateway town to the Johar Valley. Homestays are a type of tourist accommodation that differs from typical forms commonly found in communities. They offer the traveler a unique local experience that combines basic needs of food and shelter, and possibilities of interaction with the host family. After experiencing the successful program developed in Sarmoli, I wanted to determine if a homestay model would be a suitable livelihood strategy in the region. I developed an evaluation tool to make this assessment, which was then applied to other villages in the Johar Valley.

### **Significance of Work**

The Johar Valley is situated in northern India in the state of Uttarakhand in the Pithoragarh district. Residents of the valley lead a transhumance life. Summers are spent in the upper Johar Valley, and winters in the lower Darma Valley. Migrating to villages in the Johar Valley allowed the households to trade specialty crops and other goods with the people of Tibet.

In 1962, the trade route between India and Tibet was closed as a result of the Sino-Indian war. Consequently, the trade-related livelihood and population of the Johar Valley decreased significantly.<sup>1</sup> Fewer households returned to their seasonal summer villages in the Johar Valle. It is estimated that the number of households that make the seasonal trek has declined by 97% since 1961.<sup>2</sup> The few residents that choose to return to the Johar Valley each summer continue to rely on traditional forms of livelihoods, including animal husbandry and agriculture. However, with the development of the ecotourism economy promoted by the state of Uttarakhand since 2000, new possibilities of economic development around tourism have begun to emerge. The Johar Valley's proximity to the Nanda Devi Bio Reserve – a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site, its remoteness, and its natural, architectural, and cultural heritage offerings make it a prime destination for those interested in mountain and ecotourism.

The gateway to the Johar Valley is the villages of Munsiyari and Sarmoli. They are the last points with motor vehicle access, which affords them a level of connectedness that the other villages in the valley are not provided. The gateway villages tend to see a greater number of tourists as groups stop here to buy provisions before trekking further up the valley to different destinations. The villages are home to various shops, tourist accommodations and restaurants, and have the largest population in the Valley. The types of tourist accommodations range from a typical hotel configuration to homestays.

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<sup>1</sup> Negi 2007, 114

<sup>2</sup> Ibid., 115

With the growth of tourism in Munsiyari and Sarmoli, some village leaders recognized the importance of preserving the natural, cultural and architectural resources of the village, while still supporting the tourism industry.<sup>3</sup> In Sarmoli the community developed a homestay model that preserves each of these important village characteristics, while simultaneously empowering the local community and providing accommodation for tourists.

### Research Goals

After experiencing the success of the homestay model developed in Sarmoli, I was interested in determining which factors could be used to assess the viability of developing a homestay model in other locations. This led to the creation of an evaluation matrix; an assessment tool that a community can use to determine if a homestay is viable. In this work, I apply the matrix to villages in the Johar Valley to determine if a homestay model could be used as a livelihood strategy.



**Figure 1: Typical commercial building in Munsiyari with a storefront on the ground floor.**



**Figure 2: Paved path leading from a hotel to the main business area of Munsiyari.**

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<sup>3</sup> Viridi 2008

The following questions helped determine my research design: How do existing homestay models operate? What village attributes support homestay development? What existing infrastructure can be utilized? There are a handful of individual guesthouses currently operating in the Johar Valley, but they are not part of a comprehensive program. Creating a comprehensive homestay program that integrates several individual homestays under one umbrella, can help achieve economies of scale by reducing overall management and marketing. This is especially true in remote, rural environments where access to resources is often limited.

### **Audience**

My audience includes planning, architecture, landscape architecture, and urban design professionals; developers; elected officials; and professional peers. Most are knowledgeable with planning terminology and concepts, with the possible exception of elected officials. While this thesis applies the scorecard matrix to the Johar Valley, it has the potential to be applied to other similar rural and remote locations.

### **Existing Literature**

To date, extensive literature on the development of homestay models has been limited. However, literature on mountain tourism, the growth of ecotourism in India and abroad, and community based tourism combine to give a basis for looking at the homestay as a livelihood strategy in rural and remote economies.

As people across the globe look for unique travel experiences that combine natural beauty with cultural and architectural appreciation, remote locations are increasingly sought as destinations, including areas like the Johar Valley. One of the consequences is balancing the economic benefits the tourism industry brings with the negative impacts on existing social networks and the degradation of cultural and natural environment.

As a result, many villages, regions, and countries are increasingly looking at ecotourism to balance economic needs with natural, cultural, and architectural integrity. Ecotourism strategies strive to minimize the tourist's impact on the local environment as much as possible, while empowering the residents to participate in the tourist economy. This thesis explores one form of ecotourism, the homestay, as a possible livelihood strategy for the Johar Valley.

### **Field Methods**

Two case studies were explored to compliment the available literature. The homestay models in Ladakh, India and Sarmoli, India offer guidance and insights on how to approach a successful model in the Johar Valley and elsewhere. Both homestay models are discussed further in Chapter 3. Research was conducted over a two-week period during the exploration seminar using field review, note taking, unstructured interviewing, mapping, and sketching.

### **Research Design**

It was determined that a homestay program in the Johar Valley would be shaped by four characteristics intrinsic to the valley: being rural and remote, practicing subsistence

agriculture, exhibiting cultural heritage, and promoting community economic development. These characteristics set the stage for what resources would shape a homestay program, and helped create an evaluation matrix. The evaluation matrix inventoried village assets to determine if a homestay program would be a viable livelihood strategy. The matrix focuses on five areas from the tourist's perspective: village access, health, natural environment, built environment, and cultural experience. The matrix was then applied to a subset of villages in the Johar Valley. See Chapter 4 for a full description of the process.

### **Limitations and Direction for Future Work**

The goal of this thesis was to develop a tool that can help assess remote and rural locations interested in developing a homestay model. The tool was then applied to villages in the Johar Valley. There were certain limitations inherent to fieldwork of this nature due to the accelerated timeframe and the remoteness of the location. Some information and nuance is likely to have been lost during the translation and interpretation of questions and responses into Hindi, Kumaoni (local language) and English. This thesis recognizes that there are several possible challenges specific to developing a homestay model in the Johar valley. The two main ones include determining land ownership rights and understanding future infrastructure developments, which have not been considered explicitly in this work.

Most landowners in the Johar Valley belong to scheduled Bhotiya tribe; consequently their land cannot be sold to a non-Bhotiya outsider. An outsider who wishes to develop a guesthouse or other facility must partner with a local property owner. A homestay program may be easier to implement than other forms of accommodation because it works with the

local residents and existing infrastructure. However, many individual family plots have been abandoned for multiple generations, with hundreds of relatives now laying claim to the same piece of land. This makes it difficult for any individual family member to modify a house, as they must first receive the approval of all relatives with a claim to the house.

There are several large infrastructure projects planned for the Johar Valley. Informational interviews conducted through the UW exploration seminar found the Indian government has several dam projects underway, most in the planning phase. Locals speculate a road into the Johar Valley may also be built to facilitate dam construction. To date, little information has been made public. These projects may open up the valley to a broader spectrum of tourists. The phasing of a program and the construction of facilities for tourists, like modern toilets, may be greatly impacted. The challenges listed do not preclude the development of a successful program, but rather limit its ability to grow. Both topics are suitable for future research to determine what impact these challenges would have on a homestay program.

## **2.0 Literature Review**

To date, the research surrounding the development of homestay models is not extensive. However, several authors have written on the related subjects of mountain tourism, ecotourism, community based ecotourism, and rural livelihood strategies. This literature can be combined with existing homestay model case studies to give a basis for looking at homestays as a livelihood strategy in rural and remote economies. The following chapter gives an overview of tourism in India, the subsequent emergence of both mountain and ecotourism, and homestays as a livelihood strategy.

### **Growth of Tourism in India**

Over the last several decades, tourism has gone from a leisurely activity to a major worldwide business sector. People can increasingly visit remote locations that were virtually unknown until recently. According to the United Nations World Tourism Organization (UNWTO) all regions across the globe posted growth in tourist arrivals in early 2010, after suffering a slump in arrivals in 2009. Regions with emerging economies were the main drivers of the recovery.<sup>4</sup> Asia & the Pacific was one of the first regions to recover and the strongest growing region in 2010 with foreign tourist arrivals reaching a new record at 204 million.<sup>5</sup>

In India, tourism is the largest service industry contributing to the national GNP. India's foreign travel arrivals reached 5.78 million in 2010, an increase from 2009 to 2010 of 11.8

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<sup>4</sup> World Tourism Organization (UNWTO) 2011

<sup>5</sup> Ibid.

percent, exceeding UNWTO's projected growth rate of five to six percent for the world.<sup>6</sup>

Domestic tourism has also grown in India. Between 2009 and 2010 domestic tourist visits increased by 18.8%, and have steadily increased over the past decade. The state of Uttarakhand, where the Johar Valley is located, had 4.1% of the share of domestic tourists, ranking 7<sup>th</sup> in the top ten Indian states with domestic tourists in 2010. Uttarakhand ranked 16 of 35 states in foreign tourist visits.<sup>7</sup> These figures show the importance tourism has on the world economy, and specifically the important role that tourism plays in a developing country like India.

### **Mountain Tourism in India**

Tourism has also seen an increase to remote mountain locales, in both developed and developing countries. As the terminology suggests, mountain tourism encompasses those geographies that tend to be remote and harder to access than conventional tourism destinations. Rough terrains, variable weather patterns, few access points, and scarcity of resources are just a few of the characteristics that make mountain tourism challenging. Attempting to simultaneously provide economic viability and sustainability to the local inhabitants further exacerbates the problem. However, the rugged and pristine terrain, beautiful scenery, and unique cultural sites attract an increasing number of tourists worldwide to such locales.

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<sup>6</sup> Ministry of Tourism 2010, 5

<sup>7</sup> Ibid., 85

According to Sanjay K. Nepal, mountain tourism in developed countries, such as the United States, Canada, and most European countries, is more akin to mass tourism, such as ski resorts. However, he indicates there has been an increase in the number of visitors to remote wilderness areas. The focus in developed countries has been in three general areas: quality of service, environment, and public health. Specifically, communities are enacting strict regulations and control in the quality of services and facilities surrounding emission and pollution standards, and measures for solid waste disposal.<sup>8</sup>

Unfortunately, the same movement has been slower or non-existent in developing countries. According to Nepal, mountain tourism in developing countries, like India, is characterized by haphazard planning, lack of environmental standards and monitoring, price cutting, seasonality, and domination of tourism in the overall economy.<sup>9</sup> Supporting research by P. Sharma found the same issues at the regional level in the Indian Himalayas, while also finding a lack of linkages with the local or regional production systems.<sup>10</sup>

Many of these issues stem from the fact that the mountain tourism industry in developing countries has seen enormous growth in a relatively short period with very little policy and institutional development. Competition between local operations and national or international chains, rises in property values, overcrowding and environmental damage are all problems that can arise.<sup>11</sup> Essentially, the drastic growth of the tourism industry can cause social,

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<sup>8</sup> Nepal 2002, 106

<sup>9</sup> Ibid., 107

<sup>10</sup> Sharma, 2008

<sup>11</sup> Ibid.

environmental, cultural, and economic changes with both negative and positive effects at the local and regional levels.<sup>12</sup>

Harish Chandra Rai boils down the issues related to degradation of the surrounding environment into the following categories: transportation, accommodation, seasonality and congestion, environment, and management.<sup>13</sup> For tourism to thrive each of these components are necessary, but when they exist in substandard conditions the surrounding landscape degrades, illustrated in *Figure 2*. The issues surrounding transportation, accommodation, and the environment can be the first indicators of environmental degradation.

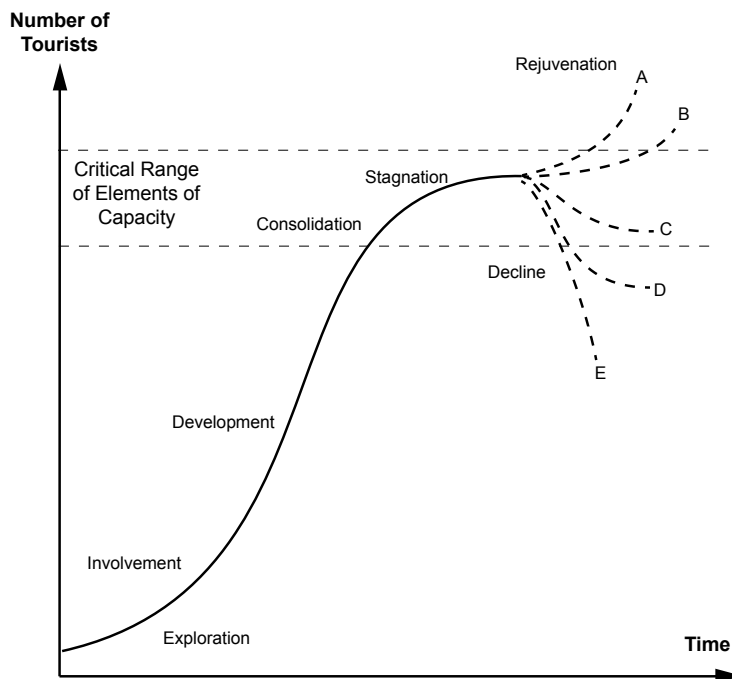


Figure 3: The Tourism Cycle<sup>14</sup>

<sup>12</sup> Coccossis 2008

<sup>13</sup> Rai 1998

<sup>14</sup> Butler 1980, recreated by author

Transportation infrastructure is a crucial element in developing mountain tourism. When suitable transportation exists, it connects developed areas and provides access to remote locales. The challenge in mountain regions is the absence of direct rail lines and airports creating congestion on the existing narrow roadways. The complete lack of roads in glacial trekking areas may also be considered a challenge or an asset depending on the type of tourist activity that is desired. Traffic can be another concern, as seasonality of the tourism industry contributes to unequal traffic congestion, especially in mountain locations where tourism operations may shut down for months at a time. During the months where tourism does take place, there can be a strain on the available transportation facilities due to the heightened demand.

Adequate accommodations are also essential for a tourist destination to survive. Many areas have limited facilities that become crowded during peak season and have inadequate sanitation. According to Rai, some destinations do not attract more tourists due to the scarcity of accommodation during the peak season, which can create an industry where price gouging occurs.<sup>15</sup> In other areas accommodations are such that their scale and style may impact the natural scenery and sense of place.

Mountain tourism can specifically impact the environment. Areas with high tourist volumes may see issues surrounding sewage outflow. Activities such as trekking, as Rai notes, often leave behind garbage on the trail, most of which is non-biodegradable material. Other environmental concerns include the extraction of resources, like the use of firewood for fuel,

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<sup>15</sup> Rai 1998, 143

especially in areas where forestland is scarce.<sup>16</sup> Some trekking companies use pack animals to carry equipment for the tourists and grazing in sensitive lands can become a concern.

Mountain tourism in India traditionally takes the form of family vacations to hill stations in the summer months, such as Nainital in Uttarakhand. The UW exploration seminar visited this hill station and I was able to experience it firsthand. Based on my own observations, it seemed that traffic congestion, garbage management, and overcrowding were three things contributing to the degradation of the village. Consequently, with the growing middle classes and expanding sensibilities on leisure, more and more Indians are seeking remote locations away from the crowded hill stations.<sup>17</sup>

### **Push for Ecotourism**

The approach to tourism has changed over the past several decades as environmental awareness and sensitivity have increased. Not only are all levels of government thinking about how sensitive areas are managed and accessed, if at all, but also how the tourist is interacting with those spaces. The main lesson has been that uncontrolled tourist development can alter the character of place, threatening the identity of the place as a tourism destination. Ecotourism looks at managing local resources and strives to foster responsible tourist behavior. This includes respecting wildlife habitats and ecosystems, local cultures and traditional lifestyles, and sustainable forms of livelihood for people living in remote areas and communities.<sup>18</sup>

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<sup>16</sup> Ibid., 144

<sup>17</sup> Siddiqui 2000

<sup>18</sup> Nepal 2002

Mexican Architect Hector Ceballos-Lascurain first coined the term ‘ecotourism’ in 1983.<sup>19</sup>

His original definition was quite lengthy, but it was also introducing a concept that few were knowledgeable about.

“Ecotourism is that tourism that involves travelling to relatively undisturbed natural areas with the specific object of studying, admiring and enjoying the scenery and its wild plants and animals, as well as any existing cultural aspects (both past and present) found in these areas. Ecotourism implies a scientific, aesthetic or philosophical approach, although the ‘ecotourist’ is not required to be a professional scientist, artist or philosopher. The main point is that the person who practices ecotourism has the opportunity of immersing him or herself in nature in a way that most people cannot enjoy in their routine, urban existences. This person will eventually acquire an awareness and knowledge of the natural environment, together with its cultural aspects, that will convert him into somebody keenly involved in conservation issues.”<sup>20</sup>

By 1993 Ceballos-Lascurain edited the definition, which was officially adopted by The World Conservation Union (IUCN). It read:

“Ecotourism is environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy, study and appreciate nature (and any accompanying cultural features – both past and present), that promotes conservation, has low negative visitor impact, and provides for beneficially active socio-economic involvement of local populations.”<sup>21</sup>

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<sup>19</sup> Subramaniam 2008

<sup>20</sup> Meet the Architect of Ecotourism! 2006

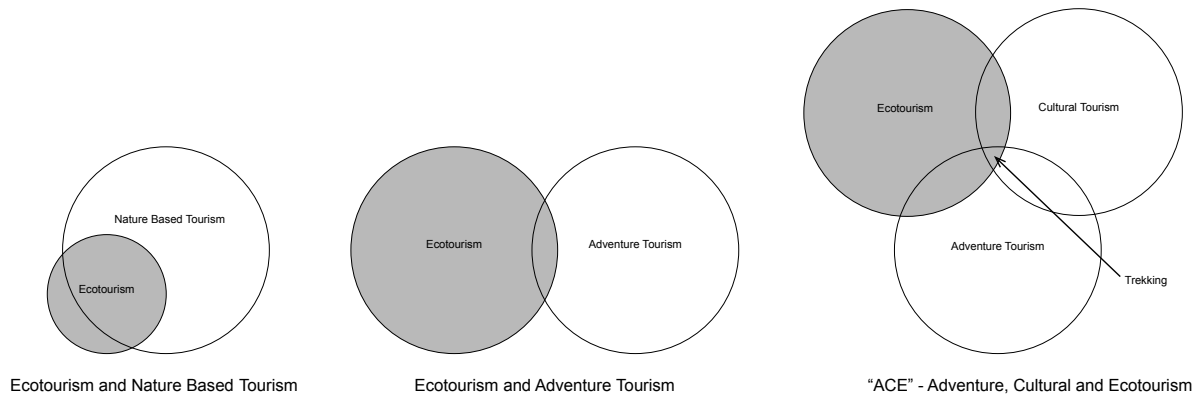
<sup>21</sup> Ibid.

Ecotourism has continued to evolve, and its definition has been redefined by several different sources, but the varying definitions have a number of recurring themes, staying true to

Ceballos-Lascurain's 1993 version:

- Minimize impact
- Cultural awareness
- Ecological sustainable management
- Conservation education and interpretation
- Local community empowerment and financial benefits
- Tourists' satisfaction

In the *Encyclopedia of ecotourism*, David Weaver examines how ecotourism interacts with other types of tourism. He creates a series of Venn diagrams to visually show the subtle differences between ecotourism and other tourism classifications. The three that relate most to this thesis were recreated: ecotourism and nature-based tourism, adventure tourism and cultural tourism.



**Figure 4: Relationship between ecotourism and other tourism types.**<sup>22</sup>

<sup>22</sup> Weaver 2001, recreated by author

As the diagrams show, ecotourism can prove to be an effective tool for the sustainability of natural resources and at the same time incorporate adventure activities and cultural aspects. Ecotourism has altered the perception that environmental protection acts as a constraint to development. Policies and programs can be integrated into the community that can both preserve the environment and encourage development. However, it is also important to recognize the important role the eco-tourist plays.

Eco-tourists are those who are “largely motivated by a desire to see the natural history of a destination and interested to protect the environment of the area.”<sup>23</sup> They often seek nature-based learning and embody environmentally and socio-culturally sensitive characteristics, such as following leave-no-trace principles. Weaver describes two types of eco-tourists– hard eco-tourists and soft eco-tourists. Hard eco-tourists are those that have a deep commitment to environmental issues and tend to make their own travel arrangements in small groups. Soft eco-tourists tend to be anthropocentric and travel in large groups through guided tours.<sup>24</sup> Lindberg characterizes the nature-based tourist (synonymous with eco-tourist) into four levels:<sup>25</sup>

- Hardcore (scientific researchers or members of educational or conservation tours; tolerant of limited amenities);
- Dedicated (people who visit protected areas to learn about local natural history; tolerant of limited amenities);
- Mainstream (people who visit unique natural destinations just to take an unusual trip); and
- Casual (people who partake of nature incidentally or as part of a broader trip).

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<sup>23</sup> Kayat and Shariff, Chapter 4: Tourists' Roles in Developing an 'Eco' Tourism Industry 2006

<sup>24</sup> Weaver 2001, 74-77

<sup>25</sup> Lindberg 1991, 3

Due to the remote and rural focus of this thesis, the ‘hardcore’ and ‘dedicated’ types of tourists are of particular interest.

### *Ecotourism in India*

Around 2004, India opened up areas to tourism where it was once banned, with the provision that the local communities would be involved in the decision making process. India looked to ecotourism and sustainable development as a means to create a framework for the inclusion of marginalized non-urban communities into the current economic growth being witnessed elsewhere.<sup>26</sup> Ecotourism was deemed desirable because it uses existing infrastructure, encourages desirable types of employment, protects natural and cultural values, provides financial support to environmentally and culturally sensitive areas, and provides education to residents and to visitors through well-trained guides.

Some government entities around India took it upon themselves to develop their own development guidance. An example is the Himachal Pradesh Forest Department’s 2005 *Revised Policy on Development of Eco-Tourism in Himachal Pradesh*. The piece set out a vision, mission, and strategy to meet the eleven objectives outlined in the document. While the overall piece is relatively short, it does get to the point and sets out a clear vision and path to reach their goals. It is also evidence of the ecotourism movement reaching different parts of the country and using it as a tool for sustainable, sensible development and preservation.<sup>27</sup>

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<sup>26</sup> Subramaniam 2008

<sup>27</sup> Himachal Pradesh Forest Department 2005

In 2008, the Ecotourism Society of India (ESOI) was formed by a coalition of tourist industry professionals and environmentalists, at the advice of the Ministry of Tourism. The group helps the Ministry of Tourism develop policy, guidelines, code of conduct and ethical practices for Sustainable Tourism, to “position India as a Global eco-tourism destination.”<sup>28</sup> These groups are essential in bringing together experts within the country both to better educate each other on the topic, and to share expertise. ESOI holds several workshops each year based on different ecotourism topics.

Most recently, India’s Ministry of Environment & Forests developed draft guidelines for ecotourism in ‘protected areas’. The guidelines are meant to help guide the selection, planning, development, implementation, and monitoring of ecotourism in India. Recognizing India’s landscapes are diverse, the document states that more regional or localized plans may be needed to address site-specific necessities.<sup>29</sup> Development of the infrastructure and systems to support tourism in these sensitive areas will benefit from the aspects of ecotourism.

### *Ecotourism in Uttarakhand*

The Uttarakhand Forest Department is tasked with overseeing ecotourism in the state. The department makes policy, promotes ecotourism, provides capacity building, establishes standards, and convenes stakeholders. The department is limited in its efforts – focusing on more accessible sites that may degrade with overuse.<sup>30</sup> Their approach is also geared towards

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<sup>28</sup> Ecotourism Society of India n.d.

<sup>29</sup> Honey 1999

<sup>30</sup> Uttarakhand Forest Department 2009

adventure tourism activities, rather than ecotourism in its purest form. However, the department does make an effort to include the local community and provide resources to help with capacity building, but it is unclear to what extent this is being done.

The Garhwal Mandal Vikas Nigam (GMVN) and Kumaon Mandal Vikas Nigam (KMVN) are also active players in Uttarakhand state. They implement the Uttarakhand Tourism Development Board's policies by developing, maintaining and marketing tourist guesthouses and adventures throughout the Kumaon and Garhwal regions. Both GMVN and KMVN run independently of state funding and generate their own revenue through the state-operated adventures and guesthouses.<sup>31</sup> In the city of Nainital, for example, interactions between KMVN and non-KMVN operated guesthouses are largely limited to the collection of a luxury tax for hotels with room rates of INR 1000 per night.<sup>32</sup>

In the district of Nainital, the Uttarakhand Tourism Development Board is developing a pilot rural tourism program. The program is based on guidelines set by the Government of India and by the World Tourism Organization, in recognition of the potential of village life to attract foreign tourists in particular. The program includes both training and the construction of KMVN guesthouses. There is not a clear evaluation of the program, or if the state's rural tourism program will be expanded to other areas.<sup>33</sup>

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<sup>31</sup> Pankti, 2008

<sup>32</sup> UW Exploration Seminar. Personal interview at Uttarakhand Tourism Development Board offices, 30 August 2008.

<sup>33</sup> UW Exploration Seminar. Phone interview with Jeewan Berry, 5 September 2008.

A recent study analyzed the Human Resource practices in hotels in four cities throughout Uttarakhand. While the study focused on major tourism destinations that are relatively accessible, the findings do give some insight into the attitudes around hospitality jobs in the state. While employees were satisfied with their earnings, they did not enjoy their working conditions, thus creating a high turnover rate.<sup>34</sup> The study notes a gap between employee expectations and available skill levels. This indicates a need for job training either through the employer or the government. To date, neither has shown interest.<sup>35</sup>

When examining livelihood strategies in other parts of Uttarakhand, the ability to tap into the assets of the local population will be essential. While many residents may not have experience in the tourism industry, they may have skill sets that can be applicable to the trade. These include the production of woolen and agricultural goods, and guiding, mountaineering, and cooking skills.

### *Community Based Ecotourism*

Martha Honey makes an astute observation about the pitfalls of ecotourism; simply stating it is not a panacea.<sup>36</sup> Ecotourism is a set of interconnected principles, and its implementation presents problems and challenges. She identifies several issues surrounding ecotourism including the effect on local communities, free trade versus local control, and the role of the state, among others. In her assessment of ecotourism and sustainable development, Honey makes a valid connection about the interplay between local communities and NGOs against

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<sup>34</sup> Bagri, Babu and Kukreti 2010, 287

<sup>35</sup> Ibid., 298

<sup>36</sup> Honey 1999, 83

their own governments and the agendas of international conservation organizations.<sup>37</sup>

Typically these struggles are over who owns and controls the land's resources. I observed several villagers in the Johar Valley who still rely on the land for their livelihood. When control of these resources is dictated through the conservation efforts of either the national government or an outside organization, it is difficult for the local population to have a voice in the matter. This suggests that tourism planning needs to take into account both the needs and desires of the local population while simultaneously considering the tourist's needs.

A subset of ecotourism, known as community based ecotourism (CBET), strives to make the local communities the main focus, as tourism impacts are more apparent at the local level. The community is the most knowledgeable about local level needs, and taking a proactive approach can deter development that is not appropriate to the destination context.<sup>38</sup> CBET also works to ensure communities are an integral part in managing the ecotourism ecosystem and includes enterprises where resources are owned and managed by the community. In many instances communities are the first to be affected by any influences. This is evident in remote locations where natural and cultural resources are the main tourist draw. As tourism grows, these same resources may start to degrade. However, the growth in tourism can also provide a strong basis for their protection and enhancement by recognizing the resources as assets.<sup>39</sup> If CBET is practiced, a community can identify its assets, and can work to preserve them. By having additional control at the local level, residents can ensure that cultural resources remain intact for future generations.

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<sup>37</sup> Honey 1999

<sup>38</sup> Leksakundilok 2004, 32

<sup>39</sup> Coccossis and Nijkamp, 1995

However, the implementation of both ecotourism and community based ecotourism is much more complex than stated above. Outside forces can interject into the process, including the national and state governments, as well as international groups and agencies. Providing livelihood strategies that can be managed and maintained at the local level aren't without problems, but may have a greater chance at truly benefiting the local population.

### **Homestays as a Livelihood Strategy**

Tourism activities that embrace the principles of ecotourism can empower a community and preserve its social, cultural and natural resources. One strategy to develop community-based ecotourism is by encouraging homestays. Research on the development of CBET activities in the Mekong region of Asia found the homestay was one of the top activities promoted in communities to help reduce the incidence of rural poverty.<sup>40</sup> A program could easily be implemented because startup costs were low; affordable and inexpensive lodging was provided to the tourist; implementation in remote areas was possible; funds directly impacted the local economy; and the cultural and natural heritage of the location could be shared with the tourist.

Homestays are distinct from other forms of development by offering the traveler a unique experience that combines ones basic needs (food, shelter) with the host's culture. Homestays directly empower and benefit the same community members with a vested interest in preserving their surrounding environment.

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<sup>40</sup> Leksakundilok 2004

- **Built and managed by the local community.** The cultural aspect of the homestay is a key component, and an exploratory study of homestays in Malaysia was undertaken to better understand it. The study found the interaction between host and guest was the core product, while education, entertainment and enrichment activities are important contributors.<sup>41</sup>
- **Take into account the surrounding heritage assets and resources.** A portion of proceeds are typically set aside for natural resource management to help conserve the surrounding environment that makes it so desirable to tourists. These funds can help mitigate the degradation that might otherwise happen. They can also be used to improve conditions within the community by improving sewage disposal and waste management infrastructure.<sup>42</sup>
- **Leverage the assets of several community members.** Traditional practices can also thrive under a homestay model. Homestays give tourists a way to interact with local inhabitants in an intimate way. Many locals may make their own products, such as dried herbs or woolen goods, which can be sold to their guests. This further emphasizes the connection with local production and sustainability.<sup>43</sup>
- **Minimize impacts on the built environment.** Homestays minimize impacts on the built environment by using existing facilities and structures. They provide tourist accommodations within existing infrastructure, typically offering one guest room per dwelling.

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<sup>41</sup> Kayat, The Nature of Cultural Contribution of a Community-Based Homestay Programme 2010

<sup>42</sup> Ladakh and Sarmoli case study review

<sup>43</sup> Kayat 2010

### **3.0 Existing Mountain Homestay Models in India**

There are several examples from around the world where homestays have been an effective livelihood strategy in rural economies. Two programs were examined in detail to provide insight into the development of a successful homestay model.

Potential case studies were narrowed by focusing on programs in rural, remote mountainous regions that rely on a growing ecotourism industry as the main economic driver. The program needed to empower the local residents while preserving the surrounding cultural, natural and built environments. From the list of possible entries, including programs in Italy and other parts of Asia, two stood out. The successful programs located in Ladakh, India and Sarmoli, India. These homestay models were chosen for their similarities to the Johar Valley – the area used in this thesis to apply the evaluation matrix developed in this work. They exhibit comparable cultural activities and natural resources; have had similar economic changes; and can provide more applicable insight into program structure.

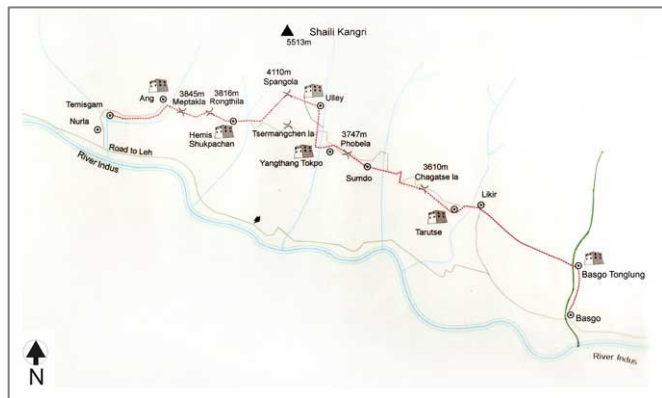
The homestay program in Ladakh offers accommodation in several villages, and offers insight into the development of a multi-village program. Sarmoli is one of the gateway villages to the Johar Valley and was chosen because of the success of its program, its location and phased expansion, and the author's first-hand experience.

#### **Ladakh Homestay Model (Himalayan Homestays)**

The former kingdoms of Ladakh and Zaskar are now a part of modern-day Ladakh Autonomous Region in the Indian state of Jammu & Kashmir. However, the two areas are

physically isolated from one another and offer different historical, cultural and economic opportunities. The areas are separated by the Zaskar Range, and connected by the Zaskar River, which after cutting the wide Zaskar Valley, turns to flow north creating deep gorges cutting through the range and entering the into the Ladakh Range, finally converging with the Indus River.

The Ladakh region has been a destination for hunting, fishing and trekking since the 19<sup>th</sup> century. It has grown from being an escape for British officials, to becoming popular for adventure tourism. Over ten years ago, locals in Ladakh expressed interest in generating income from the increasing number of visitors passing through their villages. Specifically, residents were interested in how they could provide an experience that would benefit the tourists, the local economy, and the environment. In 2001, a visitor survey was conducted in Leh, the largest city in the Ladakh region, to assess interest in a homestay program. The idea started taking shape and Himalayan Homestays was subsequently initiated in 2002 to help locals generate income and simultaneously conserve the region's wildlife and natural resources.<sup>44</sup>



**Figure 5: Villages and homestay locations in the Sham Region of Ladakh. Image from the Himalayan Homestays website.**

<sup>44</sup> Himalayan Homestays, 2008

### *The Program*

The Snow Leopard Conservancy started the Himalayan Homestays program with financial assistance from the UNESCO, The Mountain Institute (TMI), and the Ford Foundation. The Conservancy has partnered with the Ladakh Ecological Development Group (LEDeG), and the Kanchenjunga Conservation Community (KCC) to ensure the management and success of the program. The Himalayan Homestay program offers accommodations in both the Ladakh and Zaskar regions. Each region has two routes that tourists can take. This case study will focus on the homestay program in the Ladakh region.



**Figure 6: Traditional Ladakhi home found in Leh. Photo by Betsy Jacobson.**



**Figure 7: Traditional Ladakhi home found outside Leh. Photo by Betsy Jacobson.**

There are two routes available to tourists in the Ladakh region – those interested in the Hemis National Park and those interested in the Sham region. Both routes offer homestays in six different villages along the way. According to the program website, over 100 homestays between the Ladakh and Zaskar regions have been established. Himalayan Homestays market their enterprise through informational materials, tour operators, and an extensive web

presence. Tourists are able to find information on homestay locations, booking reservations and helpful tips through their website.

Program partners give trainings in hospitality and basic guiding skills to the local residents to provide them the opportunity to learn about hygiene, tourism and conservation techniques.<sup>45</sup>

The partnership is also instrumental in marketing the homestay program and working with tour operators in the region to use their accommodations. The pricing structure is quite simple. It is INR 400/night for single occupancy, or INR 700/night for double occupancy. The price includes tea, lunch, dinner and breakfast for each person. Extra meals are INR 50/meal.

### *Conservation*

The Ladakh Homestay Model benefits to the local economy in several ways through a ten percent set aside of all homestay proceeds. This funding is spent on community-led conservation drives, such as restoration of cultural heritage, waste management, nature guide training, recycle and reuse initiatives, construction of predator-proof corrals, fencing of tree-plantation areas, and setting aside traditional pasture areas for wild ungulates.

The conservation activities listed above are directly tied to the Himalayan Homestay's three objectives:

- Ensure host communities have developed a unique mountain experience, and are obtaining a fair return for their services and investment.

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<sup>45</sup> Ibid.

- Ensure homestays contribute to conserving local cultural and natural heritage.
- Create a distinctive, authentic, reliable, tourist accommodation and experience - Homestays packages for visitors in the world's highest mountain range.

### *The Homestay Experience*

The Himalayan Homestay model is very holistic, going beyond the traditional room and board to include eco-friendly comfort amenities such as solar lighting, boiled drinking water, dry-composting toilets, and solar-heated showers at select sites.<sup>46</sup>

However, it is unclear if all homestays provide each of these amenities.

An interview was conducted with a visitor who stayed at three different homestays in the Ladakh region. She didn't use a tourism agency to make a reservation, but was able to find the homestays through signs outside the home. She indicated English was spoken in each of the households. Overall she found her stay to be pleasant.



**Figure 8: A typical 'modern' kitchen in Ladakh is very basic and uses an electric stove powered by a solar panel. Photo by Betsy Jacobson.**



**Figure 9: Chai tea, bread and jam at a homestay in Leh. Photo by Betsy Jacobson.**

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<sup>46</sup> Ibid.

There were several opportunities for interaction with the local family, especially since language was not a barrier. In addition to shared mealtime, there were opportunities to access local nature guides. Two of the homes had western toilets, while the third more rural location had a traditional composting toilet. All of the homestays had a solar electric kitchen used for cooking.<sup>47</sup>

### **Sarmoli Homestay Model**

Sarmoli, a small village near Munsiyari at the gateway to the Johar Valley, is participating in the growing tourism economy by developing a community based tourism program. The Sarmoli homestay program aims to improve the livelihoods of existing residents, while preserving the local cultural, social and natural resources of the village. The program emphasizes housing accommodations that are reflective of local building traditions and livelihoods and allows tourists a chance to experience Kumaoni culture firsthand.

#### *The Program*

The Sarmoli homestay program began in 2002 and was initiated through the Sarmoli-Jainti Van Panchayat (Forest Council). Since 2010, a collective has run the program, which is currently in the process of registering as a company. The program's success is due to the work and vision of Malika Viridi, a democratic activist who manages the program. Decisions are made through a collective decision making process with those involved in the program.<sup>48</sup>

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<sup>47</sup> Jacobson 2012

<sup>48</sup> Viridi 2012

Initially there were several barriers to implementing the homestay model. Disrespectful guests were the main concern. Locals did not know what impact they may have on local children, and feared the abuse of drugs and alcohol. The capital investment and start-up costs created a financial barrier for some potential households. Another barrier was the change in household power structure. In traditional Indian families, the male contributes the most to the family income. However, the Sarmoli homestay program empowers local community members, especially women, who take a lead in the program by greeting guests, educating them about their family's livelihood and lifestyle, and by cooking. In some cases this program has made the woman the high-income earner. Overcoming traditional norms and realizing the net benefit for the family unit has empowered the local women of the village, benefited the local economy, and improved the livelihood of the villages.



**Figure 10: Sarmoli homestay with separate guest quarters. Photo by author.**

Despite the initial barriers, the program has expanded from one village to five neighboring villages. There are plans to expand in the near future between Munsiyari and the plains in order to develop a homestay circuit for tourists. The program has 15 participating households in Sarmoli and



**Figure 11: Sarmoli homestay in a traditional style home found in the Johar valley.**

another five families in the other participating villages. The goal is to add another 15 families by the end of 2012.<sup>49</sup> The homestay program enjoys continual use by travelers throughout the summer months, with peak tourism months from April-June and August-November.<sup>50</sup>

The Sarmoli program now offers three packages to cater to different travelers. The Budget Package is the most basic at INR 750/person/night. It includes the overnight stay and three meals. The Regular Package is INR 2,500 for a couple and includes an overnight stay, meals, and a day guide to a place of interest. The Customized Package is INR 3000/person/night and includes an overnight trek to Khalia at 3747m.<sup>51</sup>

As the program continues other challenges have presented themselves. Providing the needed infrastructure to accommodate tourists can be a challenge. Offering restroom facilities and a bedroom separated from the family's living quarters can be a costly addition or renovation. This added start-up cost for a family to join the program may exclude some villagers from participating. Marketing the homestay program has also proven difficult with a lack of high-tech knowledge and little web presence.<sup>52</sup>

Despite these barriers and challenges, the Sarmoli program is thriving. There is a wait list of village families that would like to participate, but the program is committed to growing in a sustainable manner and the program managers scrutinize new additions. The program also has been extremely popular with both the visitors and homestay hosts.

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<sup>49</sup> Viridi 2012

<sup>50</sup> Viridi 2008

<sup>51</sup> Viridi 2012

<sup>52</sup> UW Exploration Seminar, September 2008

### *Conservation*

When the program was first developed, active members of the Sarmoli-Jainti Van Panchayat participated in the community based tourism program. Seven percent of each homestay fee went to a conservation fund that helped the Van Panchayat pay for

ward and watch of the village forest.<sup>53</sup> However, the fee is no longer collected since the program was disassociated from the Van Panchayat. An interview with the program manager indicated the link between the homestay program and the conservation of natural resources is still intact. The program now contributes voluntary labor to ensure the protection and upkeep of the forest common.<sup>54</sup> This includes repairing protection walls and doing plantation work, previous activities being funded through the conservation fund.

### *The Homestay Experience*

The program strives to provide positive, comfortable experiences for visitors by requiring a number of standard western amenities including a clean and sanitary bathroom, hot water for bathing, and separate sleeping room for guests. The program now



**Figure 12: UW exploration seminar group welcome before walking to our homestays.**



**Figure 13: Homestay meal of rice, dahl and vegetables.**

<sup>53</sup> Viridi 2012

<sup>54</sup> Ibid.

requires a spare room within the home with an attached bathroom. Participating host families are also trained in sanitary food preparation, cooking and storage. The hosts practice subsistence agriculture, so each traditional meal includes items that were grown on site. Some families have opted to provide a separate entrance to the guest room, although that is not a requirement.

The homestay experience begins with an introduction to the program where guests learn about the community's program goals, as well as its relationship to conservation efforts in the forest council. This is followed by a welcome from the host family including a tour of the home. The information sharing helps to build cultural awareness and respect. The main direct interaction includes meals, which are brought to participants by the family members. Most families are open to other interactions, such as home tours, chatting, and selling goods made in the home. Interactions vary depending on the tourist



**Figure 14: Western style toilet found in a Sarmoli homestay.**

group and the comfort level between the family and the guests.

The Sarmoli home I stayed in had a separate entrance to the guest quarter. The room was large enough to provide a sleeping space that accommodated three adults, as well as a sitting area. The bathroom was adjoining through a hall and had a western toilet, sink and a shower area. We took our meals in the room and were served by the female host or her daughter if she wasn't home. We had limited interaction due to the language barrier, but the experience was comforting and accommodating at all times.



**Figure 15: Loom inside a Sarmoli homestay. The family made goods and sold them to visitors.**

### **Homestay Model Comparison**

The programs in Sarmoli and Ladakh have several commonalities and share many of the same goals:

- Semi-remote locations
- Developed in response to increased tourism and a declining economy
- Ties to conservation of the natural environment
- Preservation of the built environment
- Local benefit
- Ample social interactions for tourists

Both programs have a strong conservation component that helped get the program off the ground. In Ladakh it was the preservation of the snow leopards, while it was the conservation

of the village forest in Sarmoli, which also presented the opportunity for partnerships. Creating a homestay program was seen as a way to serve the mutual goals of natural resource conservation, as well as community economic development.

Being locally run, the programs offer employment opportunities to residents and enjoy a high participation rate from the community. In some households, the women hosting a homestay may be earning an income close to or higher than their husbands. To date this has not had a detrimental effect on the participating households, but is a condition that may need to be researched further in the future.

While the Sarmoli model focuses its efforts in neighboring villages, the Ladakh model offers homestay accommodations in several villages – not necessarily neighboring. Both approaches provide insight into a suitable model for the Johar Valley where the tourist will often be visiting several villages on a multi-day trek. The Sarmoli model took a phased expansion approach, which could be beneficial in the Johar Valley, especially since the Himalayan Homestay program has grown so quickly. A visitor to the program in Leh indicated there were several available homestay sites along a single corridor. This observation is supported by the fact that there are only twelve total villages involved in the Ladakh program, but over 100 individual homestay locations, compared to five villages and 20 homestay sites in Sarmoli. A high number of sites can lead to over saturation of the market and disvalue the return on investment by those involved. Supporting such a large number of sites can also lead to the degradation of the tourist site, as indicated in the literature in the previous chapter.

The interaction with western travelers has also brought concerns. Locals are worried about socio-economic changes and an increase in drug use. Due to the uncontrollable action of guests, some homestay models have implemented a code of conduct. Posting rules can inform the tourist of local customs, while making the overall experience more pleasurable for both the tourist and the host family. Appendix A shows the code of conduct developed by the Ladakhi women who operate the Himalayan Homestay.<sup>55</sup>

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<sup>55</sup> Himalayan Homestays, 2008

#### **4.0 Developing a Tool to Evaluate Homestay Strategies**

Ecotourism strives to preserve the natural, cultural and built environment; provide economic, environmental and social benefits to local residents; and provide a high-quality experience for visitors. Developing strategies that are able to touch upon each of these areas can ensure the long-term success of the community. Developing a homestay program is one such strategy.

Before a homestay program is developed it should be determined if the strategy is the right one for the community being examined. Because no comprehensive form or checklist has been developed to date, an evaluation matrix was created for this thesis. Two sets of principles were reviewed to help shape the development of the evaluation matrix; the six ecotourism principles developed by The International Ecotourism Society, and the seven measurements of mountain ecotourism developed by Sanjay Nepal.

In his article on *Mountain Ecotourism and Sustainable Development* Sanjay Nepal states that the international community would benefit by the creation of an international system to designate mountain ecotourism sites similar to the UNESCO World Heritage Site designation system. The system would establish standards, measures and guidelines for managing ecotourism destinations focusing on all key ecotourism players in the area.<sup>56</sup>

Because there has not been any formal recognition or attention drawn to these unique environments, land development has been able to occur however the landowner sees fit. This

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<sup>56</sup> Nepal 2002

often includes building developments that may turn a profit, but at the degradation of the natural, cultural and built environments.

In order to contain and reverse the degradation that was taking place, groups started to develop ecotourism principles. The International Ecotourism Society (TIES) developed a set of six ecotourism principles meant to guide those who plan to implement and participate in ecotourism. TIES concisely define ecotourism as "responsible travel to natural areas that conserves the environment and improves the well-being of local people." The group has expanded this definition into six ecotourism principles:<sup>57</sup>

1. Minimize the tourism impact on the environment.
2. Build environmental and cultural awareness and respect as tourism grows.
3. Provide positive experiences for both visitors and hosts.
4. Provide direct financial benefits for conservation.
5. Provide financial benefits and empowerment for local people.
6. Raise sensitivity to host countries' political, environmental, and social climate.

Sanjay Nepal builds upon the concept of ecotourism by focusing on mountain ecotourism. In his article he outlines seven measurements of mountain ecotourism and sustainable development as he works to define mountain ecotourism:<sup>58</sup>

1. Make ecotourism more sustainable
2. Reduce dependency and increase diversity
3. Restructure and reform existing governmental and nongovernmental institutions

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<sup>57</sup> The International Ecotourism Society 1990-2012

<sup>58</sup> Nepal, 2002

4. Advance gender equity
5. Foster interdependent local economies
6. Provide access to training, communications, and funding
7. Promote peace, safety, and security.

Elements from both sets of principles were combined to focus the evaluation matrix on five areas: village access, health, natural environment, built environment, and cultural experience.

### **Field Design**

Conducting fieldwork was an essential component of the research design and this thesis used the information gathering principles outlined in the Catholic Relief Services Manual on Rapid Rural Assessment.<sup>59</sup> This included participatory information gathering, observations, note taking, sketching, mapping and unstructured interviews to explore the villages to determine if a homestay model would be an appropriate livelihood strategy.

### *Observations and Note Taking*

Many of the sections in the evaluation matrix require the researcher to take in and assess their surroundings and keep detailed notes. If several sites are being examined, it is essential to make sure that an even scoring system is being used and that the assessment is applied equally to all sites. If several researchers are working together, this can balance out any bias that may be present.

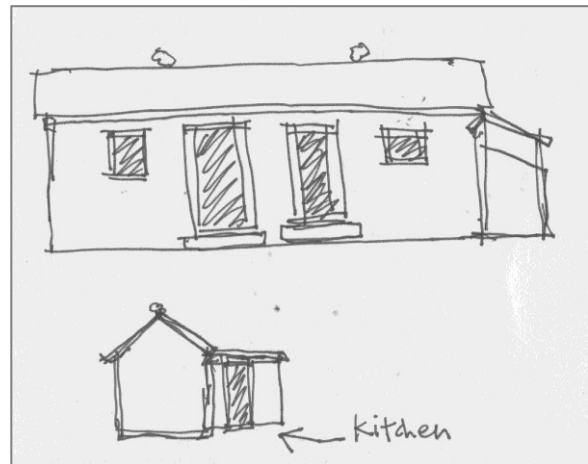
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<sup>59</sup> Freudenberger, 1999

I kept a notebook with me throughout the UW exploration seminar. This allowed me to document my surroundings at any time. Observational note taking helped me complete the evaluation matrix because I recorded things like the number of water sources in a village, the surrounding flora and fauna opportunities, condition of the built environment, and the number of accommodations in each village.

### *Sketching and Mapping*

Many remote locations may not have access to aerial photographs or geographic information system data. In these instances, it may be necessary to rely on sketching, mapping and photography to capture the surrounding environment. This includes the natural, cultural and built environments.



**Figure 16: Sketch of building in Burphu village by author.**

Due to the remoteness of the Johar Valley, sketching and mapping were an essential element of the analysis. I used sketches to capture the housing types found in the villages, to show the use of space in the buildings, and to capture details that may be lost on a photograph. I provided captions and noted details when appropriate. The sketches were also compared to photographs taken in the field to give a more robust picture, and also complimented the notes that were taken.

Mapping was another important exercise. I did not have aerial photographs or previously published maps of the villages I was analyzing. However, I worked with other students on the exploration seminar to develop maps of the three largest villages – Martoli, Burphu and Milam. The maps show the general layout of the villages, how the buildings are situated on the land, the placement of fields, and location of natural features. Each village varied in size, so the mapping exercise helped assess the village accessibility and proximity to the main trail.



**Figure 17: Village mapping of Martoli by author. Image not to scale.**

### *Participatory Information Gathering*

Interviews are one way to engage the local residents and gather additional information. The local perspective can uncover invaluable information, especially if the researchers are non-natives. When working in foreign rural environments, participatory information gathering may require the use of translators, and the type of outreach may be limited due to time and expertise.

The UW exploration seminar teams conducted several unstructured interviews throughout the trek. Translators were needed for the majority of interviews because of the language barrier.

Group interviews were conducted in Martoli and Burphu. Interviews with two hotel owners and a group of domestic tourists were conducted in Martoli. In Milam the group interviewed a farmer and a shopkeeper. In addition, I also interviewed people involved with the Sarmoli and Ladakh homestay programs.

The interviews shared concerns the community has about tourism, and gave insight into some of individual community members as well as visitors to the villages. Some interviews were conducted via email once I was back in the United States. These interviews helped clarify notes that were taken in the field and to give additional perspectives on the case study examples.

### **Developing the Evaluation Matrix**

I determined a homestay program in the Johar Valley would be shaped by four characteristics intrinsic to the valley: being rural and remote, practicing subsistence agriculture, exhibiting cultural heritage, and promoting community economic development. It was important to understand these characteristics in order to create a useful evaluation matrix. Each of the four characteristics is explained further below.

#### **1. Rural and remote**

Due to the nature of the Johar Valley, each village on the trek is rural and remote. The remote and rural aspect is important to ensure an appropriate livelihood strategy is recommended. Based on the literature review, homestays are well suited for remote, rural locations because they are inexpensive to implement and can reuse existing infrastructure. The basic amenities that a homestay provides, as well as the affordable price, fit well with the type of traveler that remote and rural locations attract. A rural and remote location can

also expose the tourist to landscapes that have not been developed because they are more accessible.

## **2. Subsistence agriculture**

Subsistence agriculture is self-sufficient farming where farmers focus on growing enough produce to meet their needs. Many of the villages are already practicing subsistence agriculture, or have the capacity to start. Subsistence agriculture is important for a successful program due to the remote nature of the villages. Those that grow or are able to grow their own food would fare better than those that must rely on provisions from Munsiyari or beyond.

## **3. Cultural heritage**

Cultural heritage encourages preservation, offers learning opportunities within the homestay, and provides social interactions between the host and the guest. Research shows that historic locations that incorporate local cultural heritage can increase the number of tourists that visit.<sup>60</sup> Each village in the Johar Valley exhibits some form of cultural heritage. For some it was the existence and condition of the village's traditional architecture. For others, it was the production and sale of local woolen goods or agricultural products. There were opportunities in every village to interact with the residents, but the number of opportunities varied from village to village.

## **4. Promoting community economic development (CED)**

Through interviews it was determined that several of the villages were interested in community economic development, and felt that local participation in the process was important. CED is an economic development approach that combines traditional economic development (markets, resources, space) with community development (society/culture, rules/institutions, and decision

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<sup>60</sup> Leksakundilok 2004

making) perspectives into an interdisciplinary, holistic approach.<sup>61</sup> Homestay models are more successful if they include input and participation by the community. Therefore, those locations that embrace CED principles are cultivating a successful program.

These characteristics set the stage for determining what resources shape a homestay program, and aided in the development of the evaluation matrix. The evaluation matrix inventoried village assets to determine if a homestay program is a viable livelihood strategy. The matrix focuses on five areas based on the literature described earlier – village access, health, natural environment, built environment, and cultural experience. Each area was expanded to provide assessment criteria, which were influenced by the four characteristics of the Johar Valley. The assessment criteria were picked for their role in creating a successful homestay program.

#### *Scoring the Evaluation Matrix*

Six villages in the Johar Valley were assessed using the evaluation matrix. The five areas of the matrix were expanded to provide the assessment criteria shown in *Table 1*. Each criterion is given a score between zero and three. In general, a zero meant the condition was not present; a one meant the condition was poor; a two meant the condition was fair; and a three meant the condition was good. This process gave each location a total score that could be used to assess the viability of a homestay program. Below is a detailed description of the five areas used in the evaluation matrix, the assessment criteria, and the scoring used for each criterion.

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<sup>61</sup> Shaffer, Deller, & Marcouiller, 2006

Other factors such as village support for tourism, valley political structure and village dynamics were also noted during the UW exploration seminar. While these factors were not scored, they can help determine readiness to proceed. This information was gathered during unstructured interviews and fieldwork.

<b>Focus Area</b>	<b>Assessment Criteria</b>
Village Access	<ul style="list-style-type: none"> <li>• Trail segment difficulty</li> <li>• Distance from trail to village</li> <li>• Village navigability</li> </ul>
Health	<ul style="list-style-type: none"> <li>• Restroom facilities</li> <li>• Access to water</li> <li>• Access to emergency care</li> </ul>
Natural Environment	<ul style="list-style-type: none"> <li>• Flora/fauna viewing opportunities</li> <li>• Presence of natural features</li> </ul>
Built Environment	<ul style="list-style-type: none"> <li>• Presence of traditional architecture</li> <li>• Condition of traditional architecture</li> <li>• Presence of existing guesthouses</li> </ul>
Cultural Experience	<ul style="list-style-type: none"> <li>• Knowledge of English language</li> <li>• Tourist opportunities available</li> </ul>

**Village Access** looked at three components: trail segment difficulty, distance from trail to village, and village navigability. Trail segment difficulty looked at the route between the previous village to the one being analyzed. Depending on the difficulty, travelers may make a decision to stay longer in one village or venture to the next. The distance from the trail to the village helps determine if a traveler is able to find the village with ease. Village navigability is an important aspect because the traveler must be able to find the homestay. The villages in the Johar Valley ranged from small and very navigable, to large and more confusing.

**Table 1: Scoring criteria for Village Access category**

Scoring for Village Access	Trail segment difficulty	0 = trail closed 1 = considerable elevation change 2 = some elevation change or other challenges 3 = flat with little elevation change
	Distance from trail to village	0 = greater than 1km to village 1 = less than 1km to village, but not adjacent 2 = village adjacent to trail 3 = village directly on trail
	Village navigability	0 = village not navigable 1 = village large but difficult to navigate 2 = village large but navigable 3 = village small and navigable

**Health** assessed three components: restroom facilities, access to water, and access to emergency care. While restroom facilities aren't necessary for the success of a homestay, they can help to attract a wider range of tourist types. If a restroom is not available the village will need to determine whether each individual homestay will need to provide one, or if the entire village could use a shared facility. Accessible water is a key component of a successful program. While suitable drinking water may not be available, either tourists or the homestay program can provide the means to sanitize the water. Due to the remote nature of the valley, access to emergency care must

be assessed. While every village may not need access, there should be reliable access at key points throughout the valley to ensure tourists are able to receive care if needed.

**Table 2: Scoring criteria for Health category**

Restroom facilities	0 = restroom not constructed or deemed a priority 1 = restroom not constructed, but deemed a priority 2 = restroom constructed but not functioning 3 = restroom constructed and functioning
Access to water	0 = no access to water 1 = less than four access points 2 = four to six access points 3 = six or more access points
Access to emergency care	0 = access to helipad or medic greater than 5km 1 = access helipad or medic less than 5km 2 = helipad or medic in village 3 = helipad and medic in village

The **Natural Environment** assessed two areas: flora and fauna viewing opportunities, and the presence of natural features. Flora and fauna viewing opportunities were examined to determine what natural features might also draw tourists. The landscape changes drastically throughout the valley, so noting these differences brings out the identity of each village. The criteria assessed the number of species or varieties of plants that can be seen surrounding the village. The presence of natural features was also examined. This includes distance to the several rivers and tributaries in the valley, as well as views of – and access to - the Milam glacier, Nanda Devi or other mountain ranges in the region. Both of these elements draw tourists to the valley and proximity to either may increase the number of visitors.

**Table 3: Scoring criteria for Natural Environment category**

Scoring for Natural Environment	Flora and Fauna viewing opportunities	0 = No viewing opportunities 1 = few species/varieties can be seen 2 = several species/varieties can be seen 3 = multiple species/varieties can be seen
	Presence of natural features	0 = no natural features 1 = one natural feature 2 = two natural features 3 = three or more natural features

The **Built Environment** examined three areas: presence of traditional architecture, condition of traditional architecture, and presence of existing guesthouses. Homestays can easily be adapted into existing buildings. Therefore it is important to determine both the existence and condition of the built environment. This thesis was particularly interested in examining the presence and reuse of the village's traditional architecture. The reuse of existing structures fits into the overall goals of ecotourism, as does the preservation of existing buildings.

Another key aspect of developing a successful program is determining the number of existing guesthouses in each village. Some guesthouses may be incorporated into an overall homestay program, while others may become outside competition. This criterion can help a program avoid saturating the market in a village or identify areas where the program might want to expand in the future. Villages with several existing tourist accommodations were given a lower score than villages with no guesthouses. This was done so villages with no competition would score better than those with existing competition.

**Table 4: Scoring criteria for Built Environment category**

Scoring for Built Environment	Traditional architecture present	0 = no traditional architecture present 1 = few structures are traditional 2 = several structures are traditional 3 = majority of structures are traditional
	Traditional architecture condition	0 = most in ruins or none present 1 = some in ruins and/or non-traditional materials 2 = some intact with mixture of materials 3 = most intact with traditional materials
	Presence of Existing Guesthouses	0 = three or more guesthouses 1 = two guesthouses 2 = one guesthouse 3 = no guesthouses present

**Cultural Experience** assessed two areas: knowledge of the English language, and available tourist opportunities. While the knowledge of the English language isn't necessary to develop a homestay, it can make a program more successful. A village with someone available that speaks English is better poised to deal with guest questions or complaints. The person can also be an invaluable contact when an emergency arises. Each of the ITBP posts has an English speaker. Villages with a resident speaker scored higher than villages with an ITBP post because it was determined that a resident speaker would be more able and willing to

interact with other villagers than someone stationed at the ITBP post. However, it is recommended to travel with an interpreter if you're unable to speak the local language.

Providing opportunities for tourists to engage with the local residents is another aspect of a successful homestay program. One reason tourists choose to stay at a homestay is to interact with the host family. There are several ways that this can be achieved. The sale of locally produced goods is one way. This includes woolen hats and scarves, and herbs, such as chives. A village can also provide tours, to nearby natural features like the Milam glacier, or around the actual village. Households in the Johar Valley are already doing many of these activities, and a successful program will work with these families to promote their goods and services.

**Table 5: Scoring criteria for Cultural Experience category**

Scoring for Cultural Experience	Knowledge of English language	0 = no English speaker in village 1 = English spoken at ITBP post 2 = English spoken by a resident 3 = English spoken by both ITBP and a resident
	Tourist opportunities available	0 = no opportunities 1 = one opportunity 2 = two opportunities 3 = three or more opportunities

## 5.0 Case of the Johar Valley

Located in northern India, the Johar Valley is a remote and rural mountainous region within Pithoragarh district of the western Kumaon region in hill state of Uttarakhand. The Pithoragarh district adjoins Tibet and Nepal. The Johar Valley is accessed from the gateway villages of Munsiyari and Sarmoli along a foot trail that follows the Gori Ganga River. The foot trail is also the only link between the lower and upper villages in the valley. Historically, the path through the Johar Valley functioned as one of the main trade routes between India and Tibet. More than two-thirds of the valley population, the tribal society known as Bhotiyas, depended on this trade for their livelihood.<sup>62</sup>

The Indian government uses the word Bhotiya to refer to those who have traditionally resided in the upper Himalayan valleys of the Kumaon and Garhwal Regions of the Uttarakhand State. A defining characteristic of the Bhotiya is the practice of transhumance, or migration between summer and winter villages to use grazing land and grow crops. Transhumance is generally considered to be environmentally friendly because it takes advantage of seasonal resources.<sup>63</sup>

In 1962 the trade route between India and Tibet was closed due to the Sino-Indian War. Consequently, many of the inhabitants of the valley were out of work. The effect of the border closing trickled down to affect every village. Families moved down the valley where more economic stability existed, abandoning their homes and the traditional transhumance

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<sup>62</sup> Negi, 2007

<sup>63</sup> Nanda Devi Biosphere Information Booklet

lifestyle. For the small percentage of people who continue to return to the upper Valley during the four to five month summer season, agriculture, wild herb gathering, and livestock herding are the major means of livelihood, with tourism becoming increasingly important.

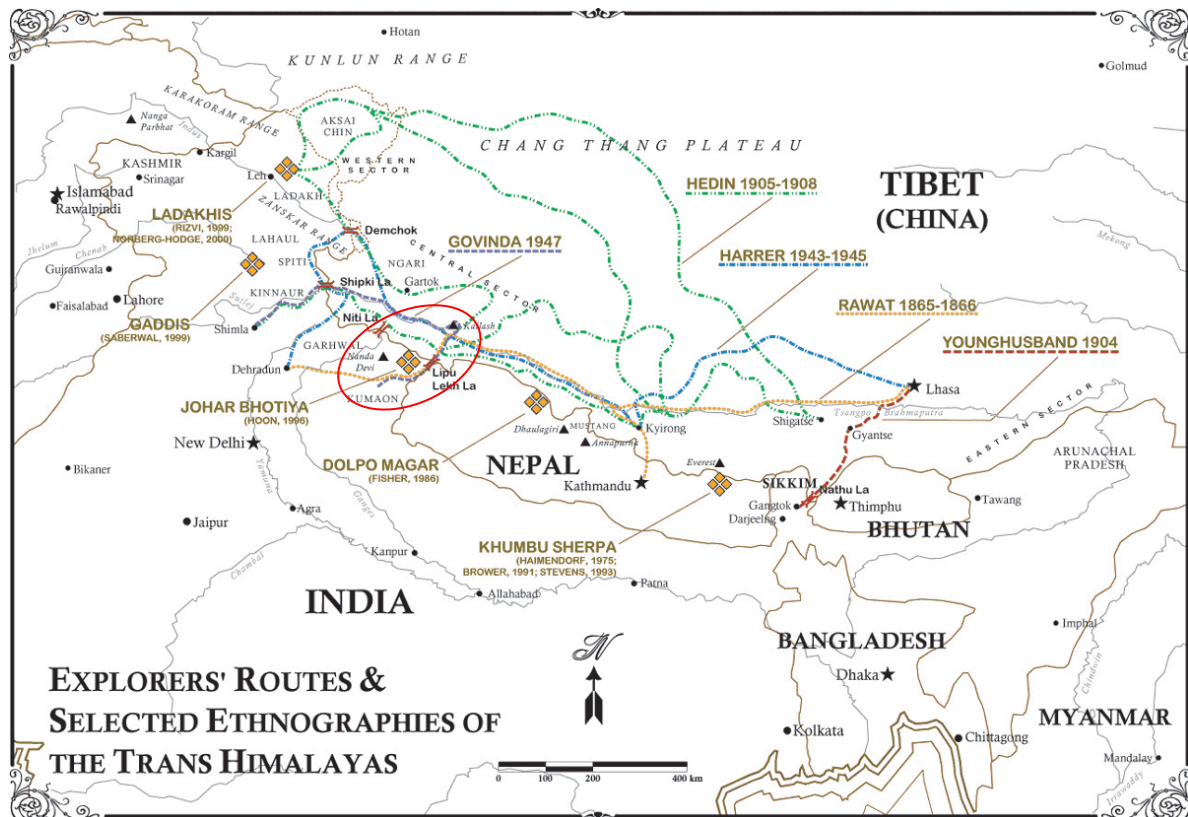
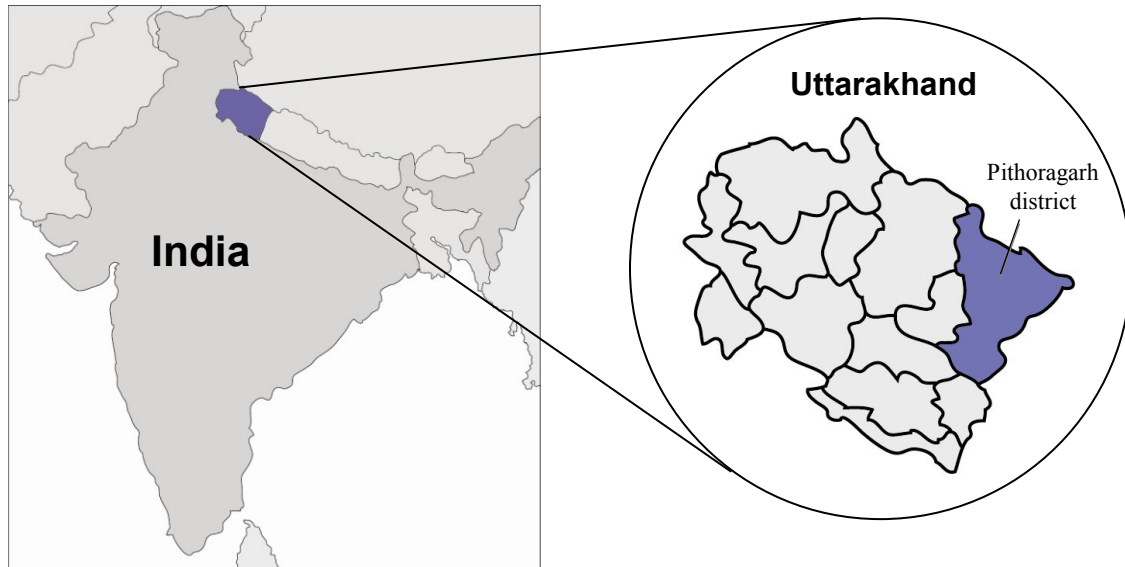


Figure 18: Historic trade routes between India and Tibet. The Johar Valley is highlighted in red.<sup>64</sup>

The border closing attributed to the growth of the gateway village of Munsiyari. Once a winter settlement and a trading post, it grew as residents no longer migrated up the valley in the summer. Infrastructure investments by the Indian Government, such as road and school building, enforced Munsiyari's new role in the Johar. The village became home to

<sup>64</sup> Maps 2006

government jobs and an increasing number of shopkeepers, diversifying the available employment opportunities.<sup>65</sup>



**Figure 19: The Johar Valley is located in the Pithoragarh district in the state of Uttarakhand.**<sup>66</sup>

### **Nanda Devi Biosphere Reserve**

In 1982 the Nanda Devi Biosphere Reserve (NDBR) was established as a national park by the Indian government and in 1992 was designated as a United Nations-registered World Heritage Site. The original designation was put in place to protect the area's biological and cultural diversity and no activities were allowed within the core area of the NDBR. This decision affected the Bhotiya's livelihood as they lost their prime alpine pastures, source of medicinal herbs, and tourism revenues.<sup>67</sup>

<sup>65</sup> Bergmann, et al. 2008, 213-215

<sup>66</sup> Figure created by author.

<sup>67</sup> Bosak and Schroeder 2004

Portions of the upper Johar Valley (including the village of Martoli) constitute part of the eastern border of the buffer zone of the Nanda Devi Biosphere Reserve. With the restrictions on tourism in the core areas of the reserve, the buffer zone surrounding it experienced increasing tourism and natural resource depletion. The increase in tourism meant the local villages now face the task of managing a tourist based economy with few of the resources, experience, and expertise enjoyed by larger tourism agencies. As the infrastructure is developed, they will need livelihood strategies that are respectful of the culture and ecology of the place



**Figure 20: The state of Uttarakhand with the Pithoragarh district and Nanda Devi Biosphere Reserve highlighted.**

The creation of the Biosphere further imposed restrictions on indigenous use of natural resources, which exacerbated declines in population due to the loss of tourism and trade economic activities.<sup>68</sup> Conservation authorities failed to recognize the Bhotiya as guardians of the landscape and rather than working collaboratively with the villages, the locals were left out of the policy making process for the NDBR.<sup>69</sup>

The core area of the NDBR was opened to limited tourism for the first time in 20 years in the spring of 2003. The government's official 2003 plan envisioned "balancing biological conservation, economic development, and sustainable eco-tourism practices."<sup>70</sup> This is

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<sup>68</sup> Silori 2007

<sup>69</sup> Ibid.

<sup>70</sup> The Nanda Devi Campaign: For Cultural Survival & Sustainable Livelihoods in the High Himalayas 2004

significant to the Johar Valley side of Nanda Devi as mountaineering opportunities from the eastern flank of the mountain increase.

### **Tourism in the Johar Valley**

Tourism is already emerging as an important source of revenue, and tourism related infrastructure development is on the rise. In some instances the tourism industry has been the catalyst that has brought locals back to the villages of the Johar Valley. Indicators that residents have found a renewed interest in tourism include the changes to the built environment, and the number of amenities that are geared toward the tourist. However, it hasn't been until recently that the desire for ecotourism has been at the forefront.

The region, valley and villages will have to determine the type of tourism they want in the area and how it will affect their daily lives. As it stands, the Johar Valley is a fairly remote place to get to. By focusing on tourists that are more inclined to partake in this type of travel, one can expect visitors that are more interested in the culture, history and natural beauty of the place.

Based on field interviews, several villages have shown interest in providing sustainable, community-based tourism activities and see it as an important step to ensure the preservation of their natural and cultural resources. However, there seems to be a lack of knowledge and leadership on how to make this happen. Interviews during the UW exploration seminar indicated at least one village had an ecotourism committee. The task and focus of the committee was unclear, and there was no apparent coordination throughout the valley.

*Changes to the Built Environment*

After years of abandonment, many of the homes and other buildings in several of the villages have fallen into disrepair. The traditional homes in the Johar Valley are constructed with slate roofs. The harsh winters create heavy loads that can shift the stone tiles. Without proper maintenance during the summer, these roofs become more susceptible to collapse. Once the roof has collapsed, the interior of the home starts to degrade as well. To date there has been no incentive or reason to maintain the structures. However, the tourism industry has brought a renewed interest as residents realize the potential economic benefits maintaining their villages may bring.



**Figure 21: Slate is the traditional roofing material used in the Johar Valley.**



**Figure 22: Some new construction in Burphu does not conform to traditional style or roofing materials.**

Some villagers have already begun modifying the built environment in response to tourism and tourist expectations. A resident in Milam moved his kitchen upstairs; streamlining the cooking process and protecting his guests from smoke. He has also plastered his walls in white mud to make them appear cleaner.<sup>71</sup> Another guesthouse owner in Milam has landscaped his front courtyard with some decorative flowers, and stated that his future

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<sup>71</sup> Rhawat 2008

renovation priorities are to: (1) install a more reliable water source, (2) create a tin-roofed lean-to in front of the house for sitting outside in the rain, and (3) modernize the bathroom. The most common request from his guests, meanwhile, is a chimney for the smoke from the kitchen.<sup>72</sup> These all indicate high-priority modifications to traditional homes if the volume of tourists increases. Suitable tourist accommodations and tourist amenity facilities are often the first services to be constructed, and the most common village-level response to increased tourism is the construction of public toilets.<sup>73</sup>

### *Existing Accommodations in the Johar Valley*

Several accommodation options exist in the valley. Both the Indo-Tibetan Border Patrol (ITBP) and the Uttarakhand Public Works Department (PWD) offer accommodations. Traditional Indian style toilets are available in most ITBP and PWD lodging. Infrastructure to provide sanitary drinking water infrastructure and facilities for showering and bathing are limited or non-existent beyond Munsiyari.

The Kumaon Mandal Vikas Nigam (KMVN) is an active player in the Johar Valley. They have built a string of guesthouses in the valley to accommodate the increasing number of tourists. The guesthouses are being constructed under private agreements with individual property owners, and the villages at large do not expect to profit from these ventures.<sup>74</sup>

KMVN did not adhere to the principles of community economic development by involving the local community in the development of their projects. While the structures are not

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<sup>72</sup> Martolia 2008

<sup>73</sup> Sabha 2008

<sup>74</sup> Pankti 2008

constructed in a traditional Johar Valley architectural style, they are similar in materials and scale.



**Figure 23: KMVN guesthouse under construction in Martoli. The same building form is repeated wherever a KMVN guesthouse is being constructed in the valley.**

Prices and size of accommodations vary by village. A guesthouse with a standard double bed, similar to a hotel room in the US, range from INR 1950/night to INR 550/night, while a guesthouse more akin to a hostel costs roughly INR 400/night.<sup>75</sup> Tent camping is another popular option, but there are no designated campsites in the valley. Rather, camping is allowed almost anywhere and no fees are required. An exception is in Martoli, where an ecotourism fee applies, and in Milam where camping is prohibited in some areas near the ITBP base.

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<sup>75</sup> Uttarakhand Tourism 2012

Several individuals currently operate a slight variation of the homestay. These accommodations tend to have a similar format to the homestay programs described previously in which travelers share homes with host families and experience a uniquely intimate view of Johar life. However, they are often run as an individual enterprise

within the village and not part of a comprehensive program like the Sarmoli or Ladakh models. The rooms are similar to some hostel operations, where multiple guests share space in an open room, rather than a single room meant to accommodate an individual, couple or small family.



**Figure 24: Guesthouse in Martoli. The upper floor is used to house visitors.**

As villages in the Johar Valley continue to look for more eco-friendly ways to accommodate tourists, developing a homestay model could bring the economic development needed, while still preserving the surrounding cultural and natural landscape. Examining the homestay models described previously offers a glimpse into a model that could work in the Johar Valley. The Johar Valley is distinguishable by many of the same characteristics as Sarmoli and Ladakh: its remoteness and ruggedness, sparse (but growing) tourism industry, poor economy, lack of tourism infrastructure, and different (and not organized) players in tourism development.

For a homestay model to be successful in the Johar Valley it needs to take each of these challenges into account. In addition, if a homestay model is suitable, one would need to also look at the type of design solutions around homestay development that are respectful of the traditional fabric, local cultural norms, and the cultural differences between the residents and the visitors. The following chapter applies the evaluation matrix to the villages in the upper Johar Valley to determine whether a homestay model could potentially be implemented.

## 6.0 Village Assessments

Six villages in the Johar Valley were evaluated using the evaluation matrix: Lilam, Bogdyar, Rilkote, Martoli, Burphu and Milam. This chapter examines each village and inventories its assets based on the assessment criteria from the five areas outlined in the evaluation matrix.



**Figure 25: Trail segment between Burphu and Milam.**

## Lilam

Lilam is the first village encountered on the trek and is home to an ITBP outpost. The village is a permanent settlement and is the only one in the valley with access to electricity.

### *Village Access*

The segment of trail from Munsiyari to Lilam had few challenges and fairly level terrain. However, potential trail hazards can be created when the trail gets washed out from heavy rains. The UW exploration seminar experienced an area where the trail had been washed out and a detour route was in place. The trail was repaired by the time the group came back through the valley. The ITBP post and chai stop are located directly on the trail. The main village is small and easily navigable, but located less than 1km off the trekking trail. The path leading to the main village can be difficult to find.



**Figure 26: One must walk up a short trail to access to the main village in Lilam.**

### *Health*

A traditional Indian toilet is located at the ITBP outpost that was available to the UW exploration seminar teams. It was unclear whether the toilet is also available to other visitors

to the village. Lilam has four access points for water through three spigots and one pipe. The water access points were scattered throughout the village. The ITBP post provides access to a medic if emergency care is needed. Access to more extensive emergency care is greater than 5km away.

### *Natural Environment*

Lilam is surrounded by lush vegetation, including ferns, conifers, and several types of flowering plants. Wildlife freely roams the area and could be seen on the opposite side of the valley during the return trek. Lilam is adjacent to the Gori Ganga and several smaller streams that feed into the main river. There are several opportunities to see distant waterfalls in the Lilam vicinity.



**Figure 27: Johar Valley views from Lilam.**



**Figure 28: Flowers blooming along the trail in Lilam.**

### *Built Environment*

Lilam has an excellent stock of traditional architecture that was well kept. However, there were some homes that fell into disrepair and have been abandoned. The homes have a central doorway accessing the upper floor and ground level openings on either side of the doorway. The ground floor typically housed livestock and the kitchen. The upper floors were used for

living and sleeping space. The occupied homes applied a white plaster on the façade of the buildings, and painted the intricate woodwork around the entry and windows bright colors. The village has a PWD guesthouse and two KMVN guesthouses, both located near the ITBP outpost in the part of the village that is directly accessible from the trail.

### *Cultural Experience*

Lilam has one chai shop that you encounter when you first enter the village from Munsiyari. The chai stop was used as a resting place and lunch spot for the UW exploration seminar teams before venturing into the village. No other opportunities to interact with the local residents were observed. While there weren't any residents that spoke English, there was an English speaker at the ITBP camp.



**Figure 29: Traditional housing in Lilam - both in ruins and occupied. Livestock and the kitchen are located on the ground level, with living space on the upper floor.**



**Figure 30: Traditional architecture in Lilam. Intricate woodcarvings were painted rust orange.**



**Figure 31: The chai stop in Lilam. A new KMVN guesthouse can be seen in the upper left of the photo.**

## Bogdyar

Bogdyar is a small village comprised of a few buildings. It is also home to an ITBP outpost.

### *Village Access*

The segment of trail between Lilam and Bogdyar had some obstacles and roughly 645m of elevation change. This trail segment offers views of several waterfalls, and at one point is routed behind a waterfall. Tourists should note that they might get wet at this point of the journey. Bogdyar is located directly on the trekking trail and is small and easily navigable. The trail is paved with stones through the village.



**Figure 32: The trail goes behind a waterfall in the segment between Lilam and Bogdyar.**



**Figure 33: Bogdyar had a paved stone pathway through the center of the village.**

### *Health*

Bogdyar has one traditional Indian toilet at the guesthouse where the UW exploration seminar camped. The facility was in working order at the time of the trek. The village has two water spigots spaced throughout the village, which seemed to meet the needs of the current villagers. The ITBP has a medic



**Figure 34: Existing guesthouse that allows camping. A toilet and water spigot is located on site. Non-traditional building form and materials were used in the construction of this building.**

as well as a helipad that could be used in the case of an emergency. The frequency or use of the helipads throughout the valley was not observed.

### *Natural Environment*

The village is surrounded by dense, lush vegetation similar to Lilam. The existing trees in the area were tall and provided wood to the village. Wild flowers were blooming in the vicinity and along the trek to Bogdyar. The village has views of the Gori Ganga River, which runs parallel to the trekking path, and a distant waterfall.



**Figure 35: KMVN guesthouse under construction.**

### *Built Environment*

The village has a KMVN guesthouse under construction. It appeared the KMVN guesthouse would have four available rooms when it is completed. The village also has another guesthouse that accommodated about six people. This guesthouse allowed camping in the grassy area surrounding the building, where the UW exploration seminar group set up camp. Most of the buildings in the village were altered and none appeared to be traditional forms. The majority of the buildings in the village had metal roofing, including the nearby temple.

*Cultural Experience*

Bogdyar has one chai shop as you leave the village headed to Rilkote. It was observed that this was the main gathering place for the few residents of the village. Bogdyar also has a small temple on the edge of the village, but no other cultural opportunities were observed in the village. While there weren't any residents that spoke English, there were English speakers at the ITBP camp.



**Figure 36: Temple located in Bogdyar.**

## Rilkote

Rilkote is a small village that is home to a future KMVN guesthouse and a chai stop.

### *Village Access*

The segment of trail between Bogdyar and Rilkote has difficult terrain and an elevation gain of 685m. The segment is marked by brief increases in elevation, with intervals of level terrain. A landslide washed out a portion of the trail in this section, which was already reconstructed to allow passage. The chai stop and future KMVN guesthouse are located directly on the trekking trail. The few homes located in the village, which is small and easily navigable, are located a short distance off the trail.



**Figure 37: Trail leading up to the village in the distance. Photo by author.**



**Figure 38: UW exploration seminar camping outside Rilkote. The village is on the bluff beyond the tents.**

### *Health*

No restroom facilities were available in Rilkote. The village did have four water taps, which is impressive given the overall small size of the village. An ITBP helipad was located in the village, which could be used in case of emergency.

### *Natural Environment*

Rilkote is located in the part of the valley where the natural landscape transitions from lush vegetation to scrub and alpine pastures. The village is surrounded by grassy mountains and offers views of the nearby Gori Ganga River and a waterfall. The distance between the valley walls narrows in this section. This made it difficult to get a view other than up or down the valley.

### *Built Environment*

The village has few buildings, but those that remain are of an old housing typology. This typology tends to have a door to one side that steps into an upper room, and one door that goes into the ground floor. The openings are smaller to shield from the wind and cold weather. Some buildings in the village use non-traditional roof materials and tended to be in ruins. The village has a KMVN guesthouse under construction.



**Figure 39: The landscape around Rilkote transitions from lush vegetation to alpine pastures.**



**Figure 40: Excellent example of home in Rilkote. The housing is an older style with smaller and fewer openings. Photo by author.**



**Figure 41: Home in ruins, but still being used as a domicile. Photo by author.**

### *Cultural Experience*

Rilkote has one chai shop as you leave the village headed to Martoli. As evidenced elsewhere, the chai stop tends to be the gathering spot for the village. The trail segment between Bogdyar and Rilkote had a small temple, but it seemed equidistant to both villages. No other opportunities to interact with the villagers were observed. While there weren't any residents that spoke English, there were English speakers at the ITBP outpost.



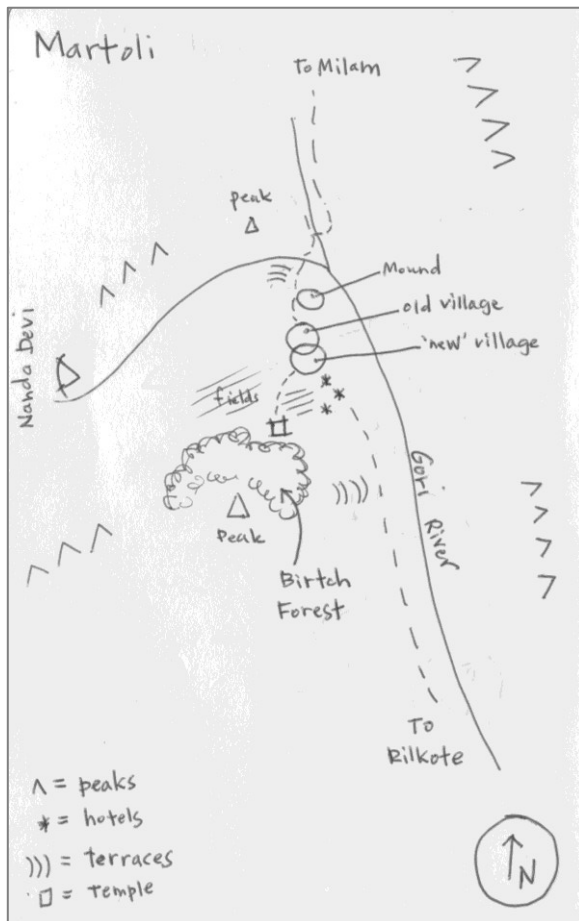
**Figure 42: Temple on the trail segment between Bogdyar and Rilkote.**

## Martoli

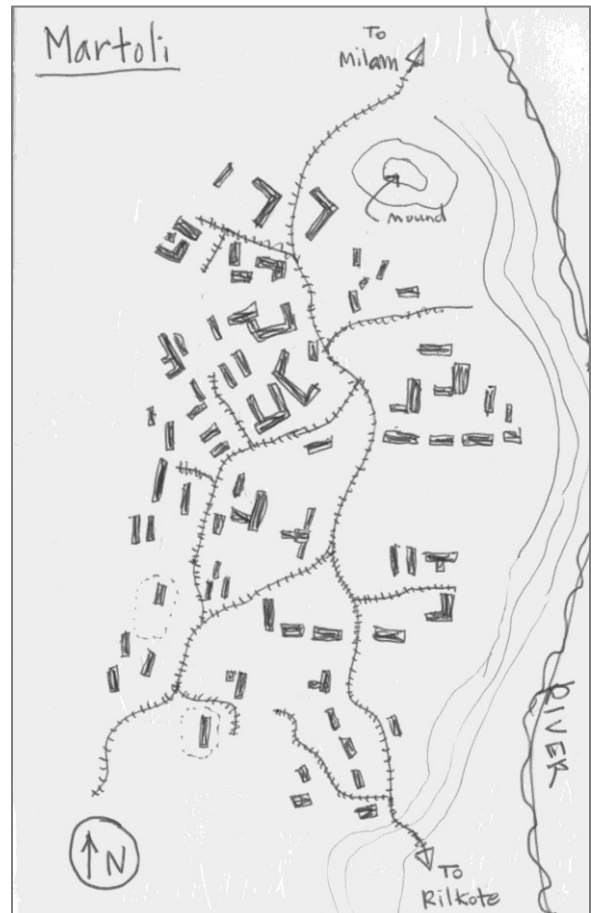
Martoli is the first large village that one encounters from Munsiyari. Of the large villages, it is also the one in greatest disrepair. Martoli is the only village in the Nanda Devi Biosphere Reserve buffer zone and the mountain can be accessed from trekking out of the village.

### *Village Access*

The segment of trail to Martoli is quite difficult and has an overall elevation change of 115m. However, the trail has a quick 200m increase in elevation when first leaving Rilkote. At this point the trail descends into Martoli with little effort. Martoli is located on a bluff above the Gori Ganga River. The village is large with several trails and can be difficult to navigate.



**Figure 43: Maps showing the context of Martoli in relation to the confluence of the two rivers and surrounding mountain peaks. Figure by author.**



**Figure 44: Map of the buildings and trails in Martoli. Figure by author. Not to scale.**

### *Health*

No toilets currently exist in Martoli, but interviews with villagers indicate they feel they are needed to increase tourism. Six water spigots are located throughout the village, with three in working order at the time of the trek. The UW exploration seminar team exploring the environment and ecology found three separate water projects that provide water for household and agricultural irrigation purposes. The village is within 5km of a helipad offering access to emergency care.

### *Natural Environment*

Martoli has a protected birch forest located on the outskirts of the village, but is otherwise surrounded by alpine pastures and mountain grasses. The village is at the confluence of the Gori Ganga and the Lawan Rivers. Due to its high elevation it is vulnerable to harsh winds, especially in the fall and winter.

Martoli has views of Nanda Devi and other



**Figure 45: Typical water spigot in the village.**



**Figure 46: Distant mountain views can be seen on a clear day.**



**Figure 47: View of Martoli with its protected birch forest on the mountain in the background.**

surrounding peaks. Agricultural plots growing vegetables and herbs can be found near active home sites. Both medicinal and cooking herbs are grown, like chives, black cumin, sweet root, and chirayat.

### *Built Environment*

The village has an extensive stock of traditional architecture; however, many buildings are in ruins. The traditional housing configuration could be considered a complex consisting of different households occupying each unit. Similar to other housing throughout the valley, the ground floor houses livestock and kitchen. The ground floor of older homes is sunken underground to help insulate the rooms from strong winter winds. Heat from the kitchen and livestock helps warm the floors of the rooms above. Buildings are positioned in response to the severe winds that whip through the valley.

The higher caste in the village was able to



**Figure 48: Guesthouse connected to building in ruins. The roof has caved in due to heavy snow loads and no annual maintenance by the homeowners.**



**Figure 49: Homes constructed by the higher caste were able to have a longer span by using raga wood.**



**Figure 50: Homes built by the lower caste were smaller because they used birch wood that was limited in length.**

access raga wood to allow larger consistent spans, creating homes that were rectangular in shape. The raga wood was also exquisitely carved and applied to door openings. The lower caste villagers could only access wood from the birch tree, so the homes were limited in size. These homes had a small square footprint, with only a kitchen on the ground floor and sleep quarters above. Doorways into these homes were smaller and undecorated. The few local guesthouses located in the village are indicative of the higher caste homes – larger and rectangular in shape.

A KMVN guesthouse is under construction that does not adhere to the traditional building style. Window and door openings are larger than the traditional homes, and the building faces into the wind. However, it appears the building will be constructed of similar materials as others in the village.



**Figure 51: KMVN guesthouse under construction in Martoli.**



**Figure 52: Owners of the guesthouse talk about locally grown herbs with students from the UW exploration seminar.**

*Cultural Experience*

It was not observed that English was spoken in the village. However, an interpreter was used to give an educational talk on the medicinal and cooking herbs grown by a guesthouse owner. Villagers were open to talking with the UW exploration seminar teams, in group interviews and one-on-one. Several villagers informally offered items for sale like scarves, hats, and herbs. The village also has a temple to Nanda Devi which is well preserved and located just outside the village on the route to the village birch forest. A festival celebrating Nanda Devi was taking place while the exploration seminar was staying in the village.



**Figure 53: Festival celebrating Nanda Devi at the temple outside the village.**

## Burphu

Burphu was one of the more active villages that we encountered with roughly 25 families or 100 people. Residents came out of their homes to interact with the UW exploration seminar teams. Burphu has the only school in the valley and children from other villages come here to attend.

### *Village Access*

The segment of trail between Martoli and Burphu is short, but has some elevation change. The two villages are located on bluffs above opposite sides of the Gori Ganga River, with a quick 65m elevation change on each side. Burphu is a large village with front and back subdivisions. The pathways are paved and well maintained making the village navigable.

### *Health*

There is one traditional Indian toilet in the village and residents recognize the need for

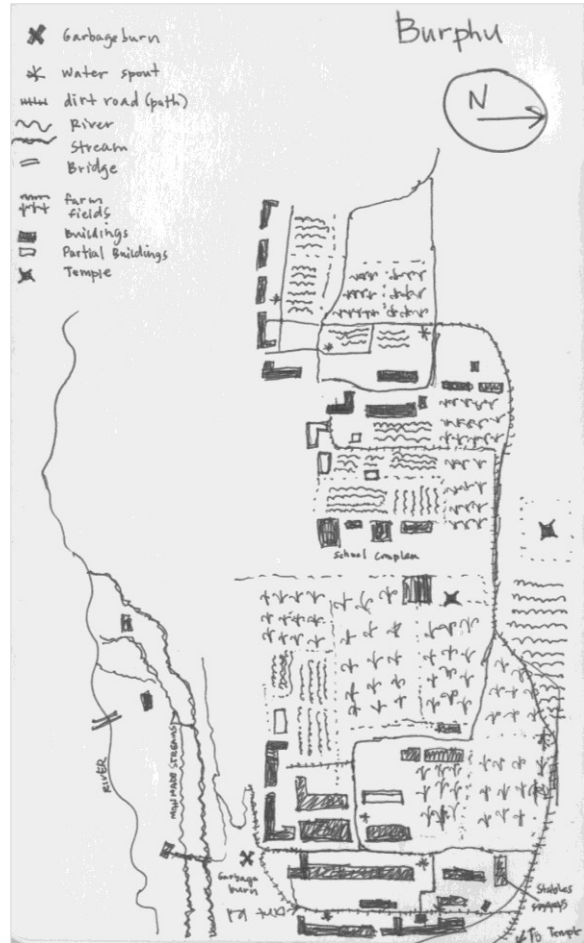


Figure 54: Village map of Burphu by author. Not to scale.



Figure 55: Stone path through Burphu.

additional facilities. Eight water spigots are located throughout the village. The UW environment and ecology team found two water projects help provide water for household and irrigation purposes. The village had a local paramedic who could aid in case of an emergency.

### *Natural Environment*

Burphu is surrounded by alpine meadows and mountain grasses. The village has multiple agricultural areas scattered throughout the village growing wheat, onions, potatoes and mustard. The settlement is at the confluence of the Gori Ganga River and a major tributary called “Kat Kuli River” by villagers. Burphu has a peek-a-boo view of mountain ranges in almost every direction.

### *Built Environment*

The village has several examples of traditional architecture that were well kept,



**Figure 56: Water spigot in Burphu. Overflow from the spigot is siphoned for other uses.**



**Figure 57: Agricultural plot growing herbs located outside a home.**



**Figure 58: A portion of the Burphu, surrounded by mountain grasses.**

and had stone pathways throughout. The style of housing echoes those found in other parts of the valley, especially Martoli. The village is separated by caste, with the lower castes located at the back of the village, away from the Gori Ganga River. Similar to other villages, Burphu has intricate woodcarvings around doors and windows and white plaster is used on the exterior of some homes. Two guesthouses were observed in the village.

### *Cultural Experience*

At the time of the trek a teacher lived in the village that spoke English. It is unknown if the teacher is a permanent resident, or only in the village temporarily. Burphu has several opportunities for cultural interaction. Villagers were happy to talk with tourists and participate in a group interview. Several residents informally sold woolen goods and medicinal herbs from their homes. Burphu also had one store that sold basic pre-packaged goods to residents and tourists.



**Figure 59: Traditional Burphu home. Buildings shared walls with adjacent units, similar to the homes in Martoli.**



**Figure 60: Intricate woodcarvings found on a home in Burphu.**



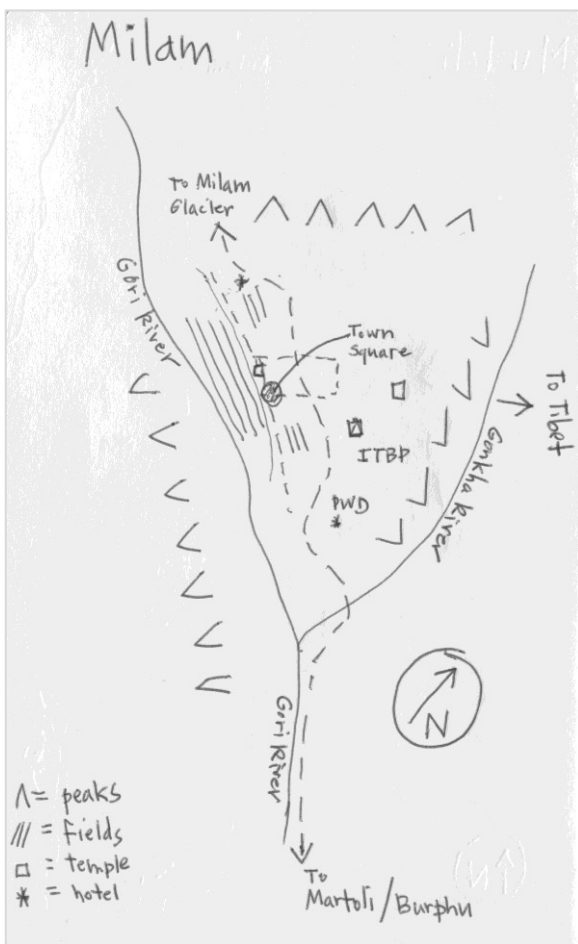
**Figure 61: A group of women waiting to be interviewed by the UW exploration seminar.**

## Milam

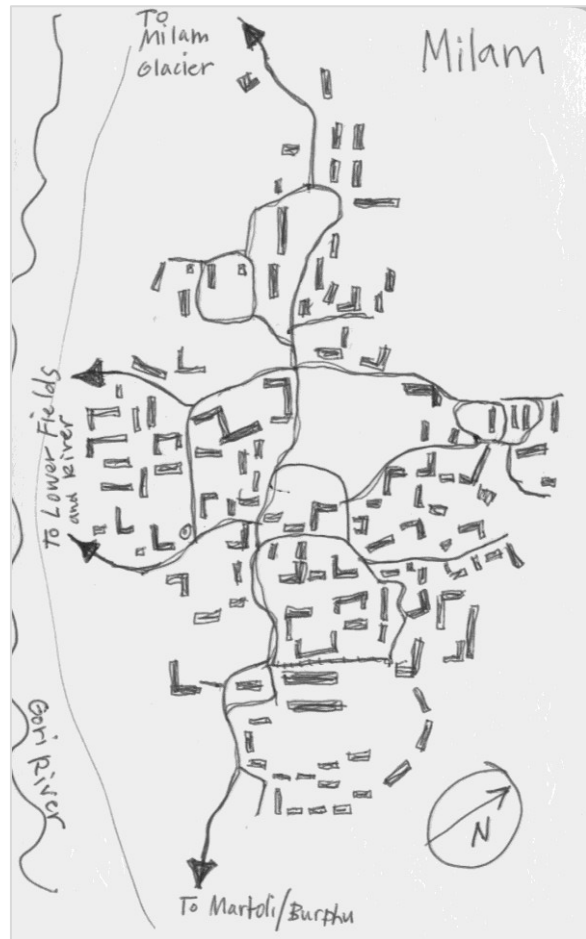
Milam is the largest village in the valley and was the hub of activity when the trade route with Tibet was still open. Due to the large ITBP outpost in Milam, and its sensitive location near the border, all cameras were confiscated when we entered the village. Consequently, there is little photographic evidence to support the text.

### *Village Access*

The segment of trail from Burphu to Milam had few challenges and little elevation change and the trail terminates at Milam. The village is large, and divided into six neighborhoods



**Figure 62: Map showing the context of Milam in relation to the mountain ranges and confluence of the two rivers. Figure by author.**



**Figure 63: Map of the structures and paths in Milam. Figure by author. Not to scale.**

associated with various castes. Upon entering Milam, one can tell that it is the largest village on the trek. However, the trails interconnect and are well kept making the village easy to navigate. Access beyond the village is limited due to restrictions by the ITBP.

### *Health*

Restroom facilities have been constructed near the ITBP post, but they are neither working nor near the central village. Six water spigots are located throughout the village. At Milam's peak, the number of water taps would seem inadequate, but support the existing population. The UW environment and ecology team found two active systems that provide water for household and irrigation purposes. Due to the high concentration of fine silt, the Gori Ganga is unsuitable for drinking and irrigation – it destroys crops by leaving a thick coat of clay. Milam has the largest ITBP outpost and has an ITBP medic as well as a helipad.

### *Natural Environment*

Milam is surrounded on all sides by mountains and is near the confluence of the Gori Ganga and the Gongka Rivers. Beyond the village is access to the Milam glacier, which is the source of the Gori Ganga. Several agricultural plots are found throughout the village as well as



**Figure 64: Trail segment between Burphu and Milam, looking towards Milam.**

adjacent to the river. The wind in Milam is not as strong as Martoli, and does not appear to influence the layout of the village or orientation of buildings.

### *Built Environment*

The traditional houses in Milam are similar to those in Martoli and Burphu, in scale, form and construction. Many homes in Milam have a white plaster on the façade, like other villages in the Johar Valley. Several buildings are in ruins, but the buildings that are intact have been well kept. The village has



**Figure 65: Two buildings were located on the outskirts of the village, near the ITBP outpost. The UW exploration seminar teams were allowed to camp here and use the buildings. There were restrooms located nearby that were not in working condition.**

two guesthouses, and camping is allowed on the outskirts of the village, near the ITBP post.

### *Cultural Experience*

Milam has two stores that sell pre-packaged goods to residents and tourists. The stores sold snacks and other packaged food items. Chocolate was one of the luxuries that the UW exploration seminar teams purchased. Villagers in Milam were also open to interviews. A guesthouse owner on the edge of the village gave the exploration seminar team a tour of his home and extensive garden. The village also has several opportunities to purchase woolen goods and herbs from locals. While there weren't any residents that spoke English, there were English speakers at the ITBP outpost.

## 7.0 Evaluation Matrix Outcomes for the Johar Valley

### Overall Assessment of the Johar Valley

The following chapter combines the individual village assessments and the evaluation matrix scoring to determine if a homestay program is suitable for the valley. The overall assessment of the valley is broken into the five areas of the evaluation matrix: village access, health, natural environment, built environment, and cultural experience. See Appendix B for the completed evaluation matrix with side-by-side scoring for all categories.

#### *Village Access*

Bogdyar and Milam were the highest scoring villages due to their relative high scores for each of the three criteria. While Martoli was located directly on the trail, it scored the lowest because it is large and hard to navigate, and it located on a segment of trail with greater elevation changes.

<b>Village Access</b>	Trail segment difficulty	Distance from trail to village	Village navigability	<b>Total Score</b>
Lilam	3	1	3	<b>7</b>
Bogdyar	2	3	3	<b>8</b>
Rilkote	1	2	3	<b>6</b>
Martoli	1	3	1	<b>5</b>
Burphu	2	2	2	<b>6</b>
Milam	3	3	2	<b>8</b>

The greatest opportunities to increase the village access scores are through improving village navigability and informing the tourist how to get to villages off the trail. This can be achieved by providing wayfinding and maps of the valley and villages. Wayfinding is a low-cost solution that uses of signs and other visual markers to help people find unmarked routes or places. Some villages in the Johar Valley provide rudimentary signs near village entrances, but they are inconsistent and often hard to visually interpret. Homes in Leh

currently use sandwich board wayfinding to inform the visitor of homestay locations. A similar approach could be beneficial in the three large villages that were difficult to navigate. Directional signage can assist visitors in finding the villages located off the trail. As the homestay program grows, an assessment can be made to see if tourist maps are needed for the three largest villages or the entire valley.



**Figure 66: Wayfinding used in Leh to identify a homestay. Photo by Betsy Jacobson.**

Scoring the “trail segment difficulty” provides useful information, but has little influence on the development of a homestay program. Due to the remote and rural characteristics of in the valley, it attracts the ‘hardcore’ and ‘dedicated’ eco-tourists described in Chapter 2. These travelers are aware of the trail conditions before booking their travel. However, the information can be used to determine the interval at which accommodations are needed in the valley. The information can be used to develop travel itineraries by helping visitors evaluate the distance they are able to hike in a day and where they will need accommodations.

### *Health*

Burphu and Milam scored the highest in the Health category. Both villages had multiple water sources scattered throughout the village. Burphu had a

<b>Health</b>	Restroom facilities	Access to water	Access to emergency care	<b>Total Score</b>
Lilam	3	2	2	<b>7</b>
Bogdyar	3	1	2	<b>6</b>
Rilkote	0	2	2	<b>4</b>
Martoli	1	3	1	<b>5</b>
Burphu	3	3	2	<b>8</b>
Milam	2	3	3	<b>8</b>

functioning toilet, while Milam had the greatest access to emergency care. Rilkote had the lowest score, with no restroom facilities and moderate scoring for access to water and emergency services.

In order to provide a valid assessment, the access to water category applied the same scoring criteria to each village. However, when comparing the number of water spigots in a village to the overall village size, it appears that current needs are met throughout the valley. The challenge is continuing to provide access to water in the future. The UW exploration seminar team analyzing the environment and ecology discovered most water was supplied to the villages through governmental and non-governmental organization (NGO) projects. Through interviews, the team found the NGO projects to be more innovative and reliable in the long-term. The NGO's also trained local residents how to maintain and fix the systems. The government projects failed to make this effort, so projects to supply a village with water were abandoned once they failed. A successful homestay program should also have a plan to provide safe drinking water. Villages can rely on the tourist to bring the needed equipment or provide filtration devices at the homestay. Options include iodine tablets, UV filtration, a water filtration pump, or simply boiling the water. A homestay program could rely on tourists to bring their own filtration device, and reassess this decision after a program has been implemented.

Over half of the villages in the valley had restroom facilities, but only Lilam, Bogdyar and Burphu had operating toilets. Based on the eco-tourist that is drawn to the Johar Valley, a 'pit' toilet similar to ones used in remote places in the United States could be installed. These

facilities do not require running water, so the cost to construct and maintain would be reduced. If cost is an issue, each village could construct a centrally located restroom facility that is shared by multiple homestays.

Access to emergency care scored evenly across the valley. Every village had access to a medic or helipad except Martoli. The majority of villages house an ITBP outpost, which are capable of providing emergency care if needed. Training homestay operators in first-aid provides another layer of emergency care. Trekking tour providers could also require someone with survival skills to accompany each group. This will take coordination with trekking operators to make sure an appropriate person is present the entire trek.

### *Natural Environment*

The Johar Valley has a rich natural environment which transitions from coniferous forests, through birch woods, to scrub and alpine pastures, and eventually to open rock and snow. The drastic differences between the

<b>Natural Environment</b>	Flora and Fauna viewing opportunities	Presence of natural features	<b>Total Score</b>
Lilam	3	2	<b>5</b>
Bogdyar	3	2	<b>5</b>
Rilkote	2	2	<b>4</b>
Martoli	2	3	<b>5</b>
Burphu	2	3	<b>5</b>
Milam	2	3	<b>5</b>

beginning and the end of the trek provide the tourist with an ever-changing landscape to enjoy along the way. Several types of fauna are found throughout the valley, both domesticated and wild. Tourists are most likely to encounter sheep since herders still use the upper Johar Valley for grazing. The powerful Gori Ganga is an omnipresent feature accompanying the tourist throughout the journey. Nanda Devi can also be seen peaking

through the clouds from various vantage points throughout the trek, mostly near and within the village of Martoli.

Overall, scoring the natural environment of the Johar Valley did not add value to the assessment. Each village ended up with an aggregate score of 5, except Rilkote that scored a four. The lower three villages of the valley scored higher on the flora and fauna viewing opportunities. The trek through this area was lush, green and had numerous blooming wildflowers. Once you reach the last three villages you emerge above the tree line, where the landscape opens to mountain grasses and alpine pastures. While not as diverse in flora and fauna viewing opportunities, the open landscape of the upper three villages gives you sweeping views of the Johar Valley. This created a higher score for the upper three villages for the presence of natural features. Rilkote received the lowest score because it is a transition village between the lush lower valley and the expansive upper valley, without any distinguishing characteristics to help it stand out.

Farming was another characteristic of the natural environment seen throughout the valley. The villages of Martoli, Burphu and Milam had large agricultural plots that grew wheat, potatoes, onions, herbs and other vegetables. The other villages, and some dwellings in the large villages, grew small gardens directly around the home. As stated earlier, and supported by the case studies in Ladakh and Sarmoli, this type of subsistence agriculture will be beneficial in developing a homestay program.

*Built Environment*

Burphu scored the highest in the built environment category, with Milam closely following. Both villages have an extensive collection of traditional homes, most in good condition.

<b>Built Environment</b>	Traditional architecture present	Traditional architecture condition	Existing Guesthouses	<b>Total Score</b>
Lilam	2	2	0	<b>4</b>
Bogdyar	0	0	2	<b>2</b>
Rilkote	2	1	2	<b>5</b>
Martoli	3	2	0	<b>5</b>
Burphu	3	3	1	<b>7</b>
Milam	3	2	1	<b>6</b>

Bogdyar scored the lowest because the existing structures have non-traditional building materials and no traditional buildings were observed.

Burphu, Milam and Martoli are well suited for homestays because they are larger villages and may have more opportunities to incorporate a homestay into the community without displacing family members in an occupied dwelling. One of the largest obstacles a homestay program will have to overcome is rehabilitating homes throughout the valley. Many dwellings are in disrepair and require extensive restoration before they are livable again. Most will likely remain that way unless more legal support is provided for individuals who would like to renovate or jointly restore owned property. One option is recycling building materials within the village to reduce the need to bring new supplies up the valley. Some villagers may determine that upgrading to modern materials lowers their costs by decreasing maintenance and yearly upkeep. Most of these cases involve modern roofing materials. Although the materials are not historically accurate, they keep the buildings from further deterioration and still provide travelers with a unique cultural experience.

The existing guesthouse criteria gave a lower score to villages that already have tourist accommodations. While the KMVN guesthouses cannot be incorporated into a homestay program, some of the smaller, locally run guesthouses could be included. This action would improve the scores for Burphu, Milam and Martoli. Incorporating existing guesthouses may also make a homestay program easier to implement by working with interested residents rather than searching for willing participants.

### *Cultural Experience*

Providing social interactions between the host and the traveler is an explicit outcome of a homestay. Travelers that choose to participate in a homestay already have an appreciation for the local culture and a desire to learn more.

<b>Cultural Experience</b>	Language	Tourist opportunities available	<b>Total Score</b>
Lilam	1	1	<b>2</b>
Bogdyar	1	1	<b>2</b>
Rilkote	1	1	<b>2</b>
Martoli	0	3	<b>3</b>
Burphu	2	3	<b>5</b>
Milam	1	3	<b>4</b>

Villages can build upon this desire to provide ample opportunities during the stay. Based on the evaluation matrix, Burphu offers the visitor the greatest cultural experience. Burphu residents sold woolen goods, ran a store and were generally interested in promoting ecotourism. Each village in the valley should strive to build upon the cultural experiences they currently offer. The sale of woolen goods or agricultural crops can be coupled with an educational or informal talk, similar to the experience in Martoli. Due to the limited number of English speakers in the valley, educational talks will need to be coordinated with an interpreter. Burphu was the only village that had an English speaking resident.

### **Recommendations for Homestay Viability in the Johar Valley**

Based on the results of the evaluation matrix and the information gathered through the case studies and literature review, developing a homestay program would be a suitable and viable community economic development tool for the Johar Valley. This thesis recommends taking a phased approach to implement a valley wide program. The case study from Ladakh has shown the advantages of a multi-village program. It ensures the villages work collaboratively, minimizes competition throughout the valley, and maximizes limited resources. A valley-wide approach can also reduce marketing costs. Having information readily available online has helped the Ladakh program excel. A similar approach can be taken in the Johar Valley. Partnering with the Sarmoli program can provide a valley wide presence. If successful, the Johar Valley homestay program can compete with nearby regions, including Ladakh, for valuable tourist dollars.

The program should also grow in a managed fashion. After assessing the scores from the evaluation matrix, it is recommended the program be initiated in Milam and Burphu, and incrementally work its way towards Munsiyari. Martoli could also be integrated into the first phase by working with existing guesthouse owners. Sarmoli has provided a successful example of incremental growth in a program. This ensures the homestay market isn't saturated like the program in Ladakh. The villages selected for the initial phase of the program have the infrastructure to support a program with little additional costs. They also offer a number of opportunities for the villagers and visitors to interact.

The valley will face some challenges in instituting a valley-wide homestay model. While this thesis is not focused on the implementation of the program, determining where to direct conservation efforts and training a workforce will both need to be dealt with. Additional coordination among the villages around conservation efforts is recommended. While this thesis did not explore potential conservation efforts for the valley, two potential areas surfaced through this work. The first is protection of the valley forests, like the birch forest in Martoli. Management and protection of the village forests is critical, especially if there will be increased visitors to the valley. The second area is valley-wide water conservation. The funds could go towards maintenance and improvements to the various water systems in the valley to ensure safe and reliable water access into the future. Training the local population is also recommended. Ladakh and Sarmoli both provided training opportunities for the homestay hosts. The scores from the evaluation matrix indicate the villages would benefit from first-aid training and workshops on developing educational demonstrations.

## **Conclusion**

Developing a homestay program is directly linked to the principles of ecotourism. Homestays work to revive the local economy, empower the community, and preserve its natural and cultural heritage. The evaluation matrix developed for this thesis demonstrated that a phased, multi-village homestay model would be suitable for the Johar Valley. The program should start in Milam and Burphu and work its way towards Munsiyari. Once the initial homestays are in place, the program can further develop and grow. The case studies from Ladakh and Sarmoli both demonstrate that village leaders with a strong vision and collaborative

partnerships can create a successful homestay model, something well within reach in the Johar Valley.



**Figure 67: Guesthouse in Martoli.**

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## Appendix A: Code of Conduct

Due to the uncontrollable action of guests, some homestay models have implemented a code of conduct. Having posted rules can inform the tourist of local customs, while making the overall experience more pleasurable for both the tourist and the host family. The following two lists were developed by the Ladakhi women who operate Himalayan Homestays:<sup>76</sup>

Please:

- Do not make public displays of affection.
- Do not wear revealing clothes such as short skirts and sleeveless tops.
- Do not urinate or defecate near water or in the fields.
- Do not taste from serving spoons.
- Do not stick your finger or spoon in cooking or serving pots.
- Do not interfere with cooking.
- Do not sit on the Choktse (Ladakhi table).
- Do not bargain over the Homestay rates.

Dos and Don'ts

- Be sure to carry all necessary provisions and fuel from Manali, Leh or Kargil for your trip – you won't find anything in the interiors.
- Do not leave any litter along trekking routes or on campsites.
- Take your shoes off before entering a monastery.
- Do not touch the statues or thanγκas at monasteries and refrain from smoking on the premises.
- Take permission from the local people before photographing them or their property.
- Don't use flash photography inside monasteries – the flash tends to damage the colour of the frescoes inside.
- Try and carry purified or boiled fresh water when you go on treks.
- Don't use plastic bags – they are banned in Ladakh.
- When visiting national parks, take special care to not disturb the wildlife.
- Wear a wide-brimmed sun hat, sunglasses and sunscreen at all times, as the sun is extremely sharp at this high altitude.

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<sup>76</sup> Himalayan Homestays, 2008

## Appendix B: Evaluation Matrix Full Scoring Results

Assessment Criteria	Villages					
Village Access	Lilam	Bogdyar	Rilkote	Martoli	Burphu	Milam
Trail segment difficulty	3	2	1	1	2	3
Distance from trail to village	1	3	2	3	2	3
Village navigability	3	3	3	1	2	2
	<b>7</b>	<b>8</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>8</b>

Health	Lilam	Bogdyar	Rilkote	Martoli	Burphu	Milam
Restroom facilities	3	3	0	1	3	2
Access to water	2	1	2	3	3	3
Access to emergency care	2	2	2	1	2	3
	<b>7</b>	<b>6</b>	<b>4</b>	<b>5</b>	<b>8</b>	<b>8</b>

Natural Environment	Lilam	Bogdyar	Rilkote	Martoli	Burphu	Milam
Flora and Fauna viewing opportunities	3	3	2	2	2	2
Presence of natural features	2	2	2	3	3	3
	<b>5</b>	<b>5</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>5</b>

Built Environment	Lilam	Bogdyar	Rilkote	Martoli	Burphu	Milam
Traditional architecture present	2	0	2	3	3	3
Traditional architecture condition	2	0	1	2	3	2
Existing Guesthouses	0	2	2	0	1	1
	<b>4</b>	<b>2</b>	<b>5</b>	<b>5</b>	<b>7</b>	<b>6</b>

Cultural Experience	Lilam	Bogdyar	Rilkote	Martoli	Burphu	Milam
Language	1	1	1	0	2	1
Tourist opportunities available	1	1	1	3	3	3
	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>4</b>

Overall Total Score	Lilam	Bogdyar	Rilkote	Martoli	Burphu	Milam
	<b>25</b>	<b>23</b>	<b>21</b>	<b>23</b>	<b>31</b>	<b>31</b>