ABSTRACT

The town of Old Tehri, India has been inundated by a lake created by the construction of the Tehri Hydroelectric Dam, one of the Indian government’s newest modernization and development projects. This dam is beset by a paradox: it attempts to bring modernization and development to the far reaches of the territory, while creating displacement conflicts which can change a relatively few people’s lives for the potential benefit of millions of others. A new city designed for the displaced residents, New Tehri, has been presented by the government as a solution for the displaced people. However, by conducting fieldwork onsite in Tehri through personal observations and interviews, I was able to determine how the forced migration of this population has changed people’s daily lives in social, cultural, religious, and economic terms. Based upon these elements, I have additionally been able to explore how the government has reacted to the voices of tens of thousands of resettled citizens.

Key Words: dam building, development, displacement, relocation, resettlement, migration, India

INTRODUCTION

Walking through Old Tehri ten years ago, one would have seen a bustling close-knit mountain community (Baruah and Sabhlok 1994). Old Tehri was the district capital, a key religious center, and an important stop along trade routes throughout the rugged mountainous region of northern India (Fig. 1). The old town was occupied by over a dozen historically significant buildings, some more than 100 years old, including the landmark Ghanta Ghar, a sixty-foot tall clock tower, and two temples to Shiva. By June 2002, however, most of the people would be gone, the shops closed, and the religious centers deteriorating with each passing day. The people of Tehri had no choice but to abandon their city with its shops, neighbor-
This dam, one of India’s newest and largest, is an example of both the country’s attempts to bring modernization and development to the far reaches of the territory, as well as the displacement conflicts which can change a relative few people’s lives for the benefit of millions of others. In hopes of quelling

Hoods, and rich historical and cultural heritage, but not because of economic hardships. The town’s demise (Fig. 2) came as a result of the 261-meter-tall Tehri Hydroelectric Dam (Fig. 3) which was built to ease water and electricity problems for Northern India (Tripathi 2005).

Figure 1. Study site: Tehri, India. Cartography by Alvin Rentsch, February 2008.

Figure 2. Partially submerged clock tower. Photograph by Garry (no last name given), 2005. Photograph courtesy [www.euttaranchal.com].

Figure 3. Tehri Dam. Photograph by author, December 2006.
resentment from townspeople, the Indian government constructed another city, New Tehri, which was designed to provide refuge for the displaced people. Located within India’s newest state of Uttarakhand, New Tehri is situated approximately 100 kilometers from Dehradun, the state capital. Built during the mid-1990s, the city houses the 12,500 former residents of Old Tehri which was previously situated at the confluence of the Bhagirathi and Bhilangna Rivers, main tributaries of the Ganges River (Prashant 2004). However, its location on the side of a mountain disrupted religious and social activities and limited compensation to landowners only; taken together, these circumstances only exacerbated the early troubles related to the dam’s displacement. The main goal of this paper is to understand how the newly installed inhabitants of the New Tehri Town have adjusted culturally, socially, and economically to their new environs and if they have re-established their sense of place in their new home.

DISPLACEMENT AND DEVELOPMENT

The Tehri Dam is a detailed example of how development can create displacement conflicts. Modernization and development are crucial for many low-income nations as they confront economic inefficiencies, poverty, and high unemployment. Development is essentially the blending together of “advances in science, technology, democracy, values, ethics, and social organizations [in hopes of] producing a far better world [thus improving] living conditions” (Peet and Hartwick 1999). Development, however, can create conflicts since it is often necessary to displace some residents to complete a large-scale project (Bharati and Rao 1999), which in turn, produces a population of internally displaced people (IDP), or refugees within the same country.

In many countries with emerging economies, governments are developing remote areas by constructing enormous hydroelectric dams to provide electricity and water to large areas of the country. Dams have created reservoirs that submerged entire towns and have displaced as many as four million people since 2000, making them the largest single contributor of mass forced relocation, (Baxi 2001, Cernea and Guggenheim 1994). Many of these people have relocated to new areas, some of which will not support their accustomed lifestyle, and thus requiring many to completely change the way they live and work. As stated by the World Commission on Dams (WCD): “The direct benefits [governments] provide to people are typically reduced to monetary figures for economic analysis and are not often recorded in human terms” (WCD 2000). Some displaced people thrive in new communities because they offer a new beginning within a modern setting, while others tend to frown upon change, yet others accept change only to be disappointed in the final result (Bilharz 1998, Nakayama 1998, Schnell and Haddock 2004).

Local opposition to development projects is generally high, because when a group of people has become accustomed to an area over generations, it can be difficult to adapt to a different region or town. Being forcibly removed from one’s homeland can not only give local residents a sense of disempowerment and abandonment at the hands of their government, but also initiate a feeling of a profound loss akin to the loss of a close friend or family member. People also develop a sense of place through attachments and behavioral patterns cultivated through years of life experiences in place, and specific cities, neighborhoods, or even bedrooms come to be highly valued landscapes. In many cases, such attachments to place are difficult for people to articulate, but can be as intimate as those felt for other people (Tuan 1974, 1979, Eyles 1985, Johnston et al. 1994, Hamnett 1996, Benko and Strohmayer 2004, Banerjee 2005).

Though this study will focus on this situation in a small Himalayan town of roughly 25,000 people, it has parallels with events that has occurred in many other places and
is likely to repeat itself again in the future. Similar large dam projects around the world, including the Narmada Dam in Southern India, the Itaipu Dam on the Brazil/Paraguay border, and the Aswan High Dam of Egypt are just a few dams that have displaced and changed the lives of thousands of people. The most significant of these massive projects is the Three Gorges Dam on the Yangtze River in the Hubei Province of Southeastern China. The largest hydroelectric dam in the world, it will have displaced approximately 1.2 million people by 2009 and affected two cities, ten county seats, and nearly 200 towns, all in order to produce two percent of China’s total countrywide electricity output. A study conducted in 2000 shows that many of the dislocated people believe that they would benefit from the dam’s construction as they thought the government-planned relocation would increase their standard of living. However, the selected resettlement areas posed multiple problems including less flat and fertile land for crops (rugged slopes of mountains) and depreciation in property values relative to previous homes and businesses. Not long after the resettlement, about sixty-six percent of the rural IDP surveyed in the study reported that they were worse off than before. Some rural migrants were forced into the city to work in the industrial sector, though many would soon lose their jobs as some sixty percent of those re-employed were laid off (Hemming et al. 2001).

Developed nations, including the United States, are not immune to displacement issues created by development projects. In the 1930s, the United States government commissioned the construction of numerous dams, including the Grand Coulee Dam along the Columbia River in Washington, which as the third-largest dam in the world, created displacement issues not only in the United States but also in Canada. Between 1933 and 1975 it is estimated that 5,100 to 6,350 people were displaced (Stanley 2004). Though many Washington landowners were compensated for the move, the dam created problems in Canada as the structure blocked salmon traveling north of the border; it also unexpectedly flooded Canadian farmland (Leonard and Cushing 2002). Development and displacement issues occur on smaller scales as well, as is the case in western Kentucky when two dams displaced many families who had lived on their land for nearly 200 years (Banerjee 2005).

Taken together, these examples show just how government development projects around the world have affected people: land quality decreases, migrant workers struggle with new jobs in urban areas, compensation poses problems of equity, and cultural identity and sense of place can be lost. It is important, therefore, to learn from government responses to displacement. Since the Tehri Hydroelectric Dam has been operational only since mid-2006, it presents a very rare opportunity to study a displacement situation created by government-sponsored development as it evolves.

BACKGROUND: TEHRI HYDROELECTRIC DAM

Uttarakhands state’s Tehri Hydroelectric dam is a massive 261-meter rock-and-concrete power plant that supplies large amounts of electricity as well as drinking and irrigation water to the greater part of northern India, including the country’s second-most populous city of Delhi. It has also created a large reservoir that inundated the town of Old Tehri, along with approximately 110 villages, displacing between 50,000 and 100,000 people (Joshi 2006). The recently constructed city of New Tehri was designated for some of these displaced people who lost their homes and businesses. These people, accustomed to their long-established life along the Bhagirathi and Bhilangna Rivers, must now adapt to a new environment on the side of a mountain which is not directly accessible to the river.

To examine the effects of this large-scale displacement, I conducted fieldwork on site in New Tehri, Uttarakhand, India, utilizing interviews, focus-groups, and personal obser-
I also consulted local Indian media reports to gain a different perspective on the issue. This work follows the lead of previous research by Sabhlok and Baruah (1994), which focused on the construction of New Tehri and provides vital background information on its planning and creation as well as some critically important information about Old Tehri (which now cannot be visited due to its total submersion). I performed a content analysis on focus-group and personal interview transcriptions, as well as on my fieldnotes. In addition, I also examined media reports and scholarly journals to explore how the residents of New Tehri have experienced social, economic, and cultural adjustments as a result of the Tehri Hydroelectric Dam.

On-site fieldwork in December 2006 provided me with detailed personal feelings of residents about displacement and relocation through the use of questionnaires, interviews, and a focus group. To garner responses from all individuals, four open-ended questionnaires were created, so as to have unique question sets for residents, government officials, university-affiliated, and dam employees. Questionnaires also served as interview outlines. Interviews with government officials and the intentionally affiliated were achieved through the snowball sampling method, where existing informants recommend others to participate (Hay 2005). Prior to my arrival, I contacted Mr. Sharma, a high-ranking official in the government organization created to oversee the development planning in the region, the Bhagirathi River Valley Development Authority (BRVDA). As my initial contact, Mr. Sharma spent an entire day informing me about the Tehri Dam and the city of New Tehri, but also arranged introductions with other key persons. Through Mr. Sharma, I meet with Mr. Bisaria, who works for the company managing the dam, the Tehri Hydroelectric Development Company (THDC). Mr. Bisaria is also a politician overseeing the district that includes both New Tehri and the Tehri Dam. Mr. Bisaria was generous to have allowed me to accompany him for two days as he met with locals. While accompanying him, I also met with the leader of the local ruling political party as well as his opposition counterpart. I also interviewed Mr. Goyal, a local educational leader. Following Mr. Bisaria’s departure, I then spoke with townspeople, who were very candid in their responses to my questions.

Additionally, I visited one of the six government-sponsored “rehabilitation sites” for the rural displaced, a community called Baniyal Wala, which I was then able to compare and contrast with New Tehri. I was also able to record daily actions of the people which allowed me to be able to explore geographic themes not available from secondary texts, a task I completed following each day of the research. In total, I interviewed twenty-five people representing a broad array, from townspeople to city and government officials.

**ENVIRONMENTAL CHANGE**

The residents of Old Tehri lived in a river valley at an average altitude of 1,115 feet above sea level. Since relocation to New Tehri, the community has had to adapt to life at 5,085 feet (Fig. 4). The extreme elevation change has resulted in radical environmental differences that include wider daily temperature ranges and a reduction in daily sunlight. Though daytime temperatures can still be warm, as high as 105º F in the summer, it is the conditions at night that offer the biggest change. Cold temperatures and blistering wind drive people from the streets shortly after the sun falls behind the mountain, which occurs not long after 4 p.m. during the winter. The higher altitude of New Tehri has also resulted in a lengthened winter and introduced the possibility of regular snow, since temperatures at the new site commonly fall below freezing (Baruah and Sabhlok 1994).

These changes in elevation and temperature alone have effectively altered the daily routines of people in New Tehri. Separate interviews with both the ruling and opposition party leaders revealed a common observation.
of this environmental shift on their political traditions. Old Tehri’s community centers played host to political debates that occurred following the end of the workday at 5 p.m. Temperatures allowed this, even during the winter. The colder weather, coupled with the city’s larger size and accessibility issues, now often prevent these meetings from taking place in New Tehri. A radical change in environment from a relatively low-lying area to the highlands has thus changed the operation of the entire community and its leaders.

THE ECONOMIC SHIFT

The Tehri relocation project has made significant changes to the local economy at both the individual and community levels. The relocation altered the economic lives of the displaced citizens, some for the better though many for the worse. Determining compensation eligibility for residents presented another challenge for the government, and strict measures were developed.

Only families who had owned land were compensated, a pattern that is typical in such cases. In many developing nations, India included, a large part of the population does not own land but is still a vital part of the local economy. As noted by the WCD, even those who have not necessarily lost land, but have directly been affected by the project, may experience a drastic change in economic conditions as a result, especially those in nearby communities (WCD 2000).

As was stated in an interview with Mr. Malik, an employee of New Tehri’s welfare office, residents felt that the compensation package did not meet expectations:

Now the people who were entitled to be rehabilitated to this place, they did not get the proper accommodation, most of the people did not get the accommodation...I mean a house. Our residents, most of the people, did not get that.

It would seem that the financial package could be quite lucrative as landowning families could receive nearly Rs. (India Rupees)
700,000, which is approximately US$15,000, a sum more than four times the average annual income of an Indian citizen (CIA 2007). However, in continuing my interview with Mr. Malik, he suggested that the government may not have fulfilled parts of its monetary package:

People do not get entitlements for [the move] from that place, and most people did not get the entitlements. What entitlements they were authorized to get, they did not get, most of the people. [It is the fault of] the district magistrate and city commissioner, they are responsible.

Though only the landowning families of Old Tehri received land in the new city, the new properties did not necessarily compare favorably to value for the entirety of their land in Old Tehri. If the reservoir submerged only a portion of a family's land, they would only receive reimbursement for the part of land deemed uninhabitable. However, they would not receive anything for the non-submerged land despite its being virtually unusable. Conversely, Mr. Bisaria stated he felt that people received the amount of compensation they should have and perhaps even more. He continued by saying that many of these people have greedily complained and continue to push the government for more money in hopes of compensating them for emotional damages.

It was generally thought that monetary offerings would improve the residents' financial standing and create an increase in overall standard of living. However, these outcomes did not appear to have been achieved when I visited the new town. Even for some of those relocated families who prospered as a result, the positive economic shift still could not replace Old Tehri and the desire to return to their previous home. In one instance, I was invited to visit the home of an affluent family that lived in one of the city's few single-family houses. The family explained that they preferred their current situation in New Tehri over their previous one in Old Tehri, but that they were only speaking in terms of their prosperity. In fact, the head of the household insisted that he preferred a return to Old Tehri because it was his home.

In addition to the problems above with the packages, many of the displaced residents have had to deal with corruption at the level of local government. Corruption in India today is widespread, found, in the words of one observer, at “the heart of national and provincial political institutions” (Singh 1997). Interestingly, the question about corruption in the local government was introduced by Mr. Bisaria. The response by Mr. Malik was simply stated, “Corruption? Yes.” When asked to expand, Mr. Bisaria was somewhat evasive, “Um, well, in this region, the government does these types of things; they do it.” He continued to explain that bribery was necessary for some of these displaced people, and that families looking to gain compensation for their submerged houses were subject to an evaluation by the national Public Works Department division of Forest and Horticulture. In this situation, however, Mr. Bisaria described that the amount of depreciation of a family's house did not necessarily depend on how many problems existed; rather it could be based on how much the family was willing or able to bribe the appraiser.

The multiple relocations, including 110 of Old Tehri's neighboring villages, to New Tehri essentially doubled the old community's population within a remarkably short amount of time. This population boom has made it very difficult to find work. In an interview, Mr. Singh, representing the government employment office, explained the nature of the employment problems facing the citizens of New Tehri:

There are no private sectors, nobody coming, no industry, no capitalists…there is no private organizations, no factory…only government. Jobs [are] the same, [the] same people [are] doing [the] same work, just [in a] different place. Suppose somebody wants to invest money here, to establish a factory,
the conditions are not very good, it’s very cold, [which adds to the] labor problems.

In addition, he explained how there was no funding to hire additional city employees in New Tehri, including those in public works, civil, and administrative positions. Thus the same workforce tasked to cover Old Tehri must now serve a larger city with twice the population, which has resulted in a larger workload. These added responsibilities have affected the community in terms of both time and money, especially for public works employees. First, vehicles are now required to transport the workers from site to site as well as from home to work, something that was unnecessary in Old Tehri and which costs the city additional money and time. Secondly, work efficiency has diminished as transportation to and from job sites has increased due to the city size and rough terrain.

**URBAN ISSUES**

New Tehri is a planned city that was designed to host 25,000 people’s homes and businesses and was intended as “not merely a framework for rehabilitation but also as an opportunity for modernization” (Baruah and Sabhlok 1994). Yet its citizens describe the new city as awkward, cold, and unpopular. Building a city on the slopes of a mountain can be a daunting task, especially when the city is not generally supported by the people. Already facing overwhelming opposition from the displaced citizens, the government needed to design it in a way that would appease the upset immigrants. To an extent, this idea worked, since many new facilities were constructed that did not previously exist. As Mr. Goyal (a local university professor) described the change the move brought to his university:

> We did not have much infrastructure there (Old Tehri). It was not available and the space was very small...[and] we are now sufficient in infrastructure here for this campus...[and] now have the hostel facilities for the girls and boys

Though he seems pleased with the size of the new campus, the new location is substantially removed from New Tehri. Unlike the small university that previously occupied space right in the city, the new campus of the H.N.B. Garhwal University is closer to a neighboring town than to New Tehri, which has created a need for transportation to and from the city and for dormitory units.

Within New Tehri, residents have expressed a concern over transportation problems that exist both within the community as well as with neighboring cities and towns. The city is a split-level town with a lower half of western block-style residential housing and an upper half with markets, a school, and government facilities. The main intra-city accessibility problem concerns the difficulty of travel between the upper and lower parts of the city, resulting in bottlenecking of main routes. Additionally, walking within the city has been hampered due to its larger size and elevation changes present throughout the city.

An interview with a senior citizen highlighted another problem that mountain communities face, that of landslides, taking out the only roadways from New Tehri:

> Suppose there is a roadblock, due to landslides, the roads are blocked, how many days it remains blocked. The movements of the people are completely hampered for that time.

Furthermore, the construction of the dam also cut the local region in half, with the reservoir serving as the knife. With the existing bridges over the Bhagirathi being submerged, cities directly to the east of New Tehri have virtually no access to their district capital. As he describes the situation, Mr. Bisaria explains that a local politician of the eastern region used to frequent Old Tehri but because the nearest bridge is fourteen kilometers away, he now only seldom visits. Also greatly af-
ected are those residents on the other side of the river, who used to live just outside of Old Tehri, who must now commute much longer distances. Additionally, the reservoir hinders cross-region transportation. As Old Tehri served as an important juncture in regional transport, the trucking industry was particularly hard hit by the change. Mr. Bisaria indicated to me that the government had promised a bridge over the reservoir. However, in the nearly ten years the city has been operational, no construction has begun on a bridge. Even if a bridge is constructed, bottlenecking will be a serious issue. Whereas many bridges formerly spanned the river, one bridge would then have to handle the total amount of that traffic, a scenario that could lead to a very inefficient crossing.

RE-CREATION OF PLACE

The residents of Old Tehri fought long and hard to keep the government from constructing the Tehri Dam. During many of the interviews I conducted, Old Tehri was presented as an extremely close community where generations had lived on the same land for nearly 200 years. When asked about Old Tehri, the opposition leader in New Tehri explained while looking out the window in the general direction of where the inundated town lies in ruins, “Old Tehri is our own city, we loved Tehri.” Forcing the residents of Tehri to relocate to the planned city of New Tehri angered many people, as he continued, “Now we (are) situated in New Tehri, but New Tehri is not so popular.”

New Tehri is unpopular for many reasons: changes in the climate, city size, and above all, its lack of resemblance to Old Tehri with its modernist urban-style construction unbefitting of a Northern Indian mountain community (Fig. 5). Amidst the newly paved streets and fresh paint, an attempt to create a connection to the old city has already begun as a few religious buildings in Old Tehri were dismantled and reassembled in New Tehri. In re-creating parts of their old city, the displaced citizens have transformed their new surroundings to keep reminders of Old Tehri alive. Besides moving the religious structures, a replica Ghanta Ghar, or clock tower, was constructed in the center of the residential section of the city. To make it seem even more authentic, the actual clock was not added, a reflection of the original tower whose clock had stopped working and was taken out years before the city was flooded. Time itself has lessened the sense of displacement as the city itself has lost much of its newness. Though New Tehri has only been inhabited for a decade, trash buildup, un-repaired building façade cracks and paint chippings, sprouting weeds, and potholed streets have all detracted from the once brand-new city while potentially adding to the displaced residents’ sense of place by perhaps imaging the town as being more historic and lived in.

RURAL DISPLACEMENT: BHANIYAL WALA

Of the estimated 50,000-100,000 people displaced by the dam, only 12,500 were residents of Old Tehri. The remaining people were those who lived in the hundreds of other flooded small towns and villages that lined the Bhagirathi and Bhilangna Rivers. More rural in lifestyle, these people have been affected differently than their more urban counterparts. It is perhaps in realization of their agricultural lifestyle that the govern-
ment decided to not relocate all of these people to the urban center of New Tehri, though some chose to do so. Rather, these displaced people would be resettled across eight different sites around Uttarakhand’s capital city, Dehradun, a shift of 30 to 50 kilometers from their previous homes. Reactions noted during a small focus group with citizens of one of these rural relocation sites, Bhaniyal Wala, indicated different emotions than those in New Tehri.

Bhaniyal Wala, a small dispersed agricultural community, is situated on an entirely flat landscape and lies about thirty kilometers south of Dehradun. The spatial shift that has taken place for the displaced rural dwellers has resulted in a mass movement of people out of their familiar mountain surroundings and into the low plains, a change that has brought many significant environmental and economic changes. Those participating in the focus group included eight men and a village elder, Mr. Mihra. Though Mr. Mihra answered most questions first, the other participants also added their independent views. During the conversation, the most pressing issues to these people included the drastic change in crops that can be grown, the accessibility to natural resources, and the addition of infrastructure.

In their shift from the mountains to the lowland plains of Northern India, these rural people, can no longer farm their most successful crops including jhangora, beans, apples, and other high altitude fruits. The resettlement has forced a change to crops that can grow in the lower altitudes including sugar cane, rice, wheat, and mustard seed. Despite the radical change in crop selection, induced by the climatic difference, the participants show satisfaction because the larger amount of arable land has resulted in higher production which, in turn, has resulted in greater profits. They have criticized the government for not supporting them to acquire more livestock, especially goats and sheep, that the additional land can sustain. Yet, the access to greater amounts of arable land has come with its own problems. In their old wooded environment along a river, the community had free and easy access to water, fish, stone, and wood. Unfortunately, Bhaniyal Wala has access only to a river which is dry for periods of the year, and has therefore has to rely on a water well which does not always supply adequate amounts for the community. Since this well is government-run, water now also comes at a cost. The lowland plain is also widely devoid of large wooded areas as well as exposed mountains which mean that wood and stone building material now must be purchased, though the government did assist in building structures using mainly concrete and brick.

Dotted across the landscape of Bhaniyal Wala are a series of newly constructed concrete and brick buildings. The focus group praised the government for providing roads and structures that they did not have before, especially the new community center. The men agreed with the village elder when he explained his satisfaction of having this multi-purpose center where the community can hold various activities, including debates. Though they were not brought up during the discussion, the size and appearance of the housing structures are impressive. Many are two-story residences that appear to house only one extended family, far different from the small, single-story dwellings observed in villages near the river. Though the group expresses some dissatisfaction for not getting a school for their own community, access to education has improved as neighboring communities have accepted the children into their schools.

Re-location also has an effect on the culture of the community, mainly due to forced urbanization. Although the new location fills the agricultural needs of the people, the location of the new community along a major highway between Dehradun and Rishikesh coupled with its proximity to other towns has created a situation more like what one would find in New Tehri. Communication between the displaced population and their new neighbors has resulted in a diminished use of their old (local) language dialect. This change has not
been without benefit, since access to medical care has improved and women are now more prominent within the community, changes that are perhaps related to the changing flow of ideas in the townspeople’s newer, more urban location. Women themselves stated that their peers now hold positions of power within local organizations.

In comparing the responses of the rural and urban population, the common problems are these associated with being displaced from a homeland, the government’s inability to fulfill basic needs, and not having any representation in selecting their new home sites, contradicting government-released documents outlining relocation policies. The difference though, is that the rural population has been more accepting of the relocation, due in large part to the economic benefits and better access to services. Yet even these participants indicated that they would have preferred a new site along a river in a more wooded area, similar to that of their previous home. Both the rural and urban populations expressed a disappointment and anger towards the government for acting in its own interest and not those of the relocated residents, by not better consulting them on the move, neglecting compensation, and operating under corrupt practices. Baniyal Wala’s village elder explicitly explains his discontent for the government’s role, or lack thereof, in enabling his people to learn new skills such as using modern farming machinery, which would fully allow their community to adapt to their new economic, social, and environmental surroundings.

RELIGIOUS IMPACTS

Known to the Indian Hindus as ‘Mother Ganga,’ the Ganges River flows approximately 2,500 kilometers from its source high in the Himalaya Mountains to the world’s largest delta into the Bay of Bengal (Chakrapani et al. 2004). South Asia’s longest river also has tremendous religious significance to Hindu worshipers around the world. Faithful Hindus make pilgrimages to the Ganges and its tributaries in order to call upon the Gods, purify themselves, return to their spiritual origins, pray for themselves or family members, as well as to spread the ashes of the deceased (Gesler and Pierce 2000, Gosling 2001). The most important pilgrimage locations lie on the banks of the Ganges. Besides the religious significance of the river, it also serves an important social function both as a location to showcase the diversity of the pilgrims with their unique customs and ideas and a connection between people of different social groups, ranging from the wealthy elite to the struggling poor (Singh 2004).

Tehri’s upstream location along two tributaries of the Ganges played an important role in pilgrimages because the river is cleaner relative to spots downstream, where heavy pollution has caused the water to become contaminated. Now, of course, the rivers near Tehri have turned into a massive lake, which has limited the flow of water. Interestingly, when asked about the religious changes that occurred as a result of the displacement, Mr. Bisaria only stated that “they are suffering religiously.” Due to the vertical displacement, it now takes sixty minutes by car and likely even longer by bus (Fig. 6) to reach the banks of the sacred waters, thus eliminating the feasibility of the daily walk to the river, commonplace in Old Tehri. As well, security concerns by the Tehri Hydroelectric Development Company have made activities near the dam quite impossible to accomplish through the construction of fences, meaning that residents must travel even further upstream to access the water.

Due to perceptions that the dam would harm water quantity and quality downstream, the government made attempts to maintain the uninterrupted flow and purity of the holy Ganga waters of the Bhagirathi and Bhilangna Rivers. Flow and purity are highly important as pilgrims seek to spiritually cleanse themselves with clean water and wash away their troubles (Alley 1994). The government study committee proposed that one cubic meter (approximately thirty-five cubic feet) per second of water be continually released during normal
weather conditions. They also further dismiss the effects by stating that the Bhagirathi River only supplies one-third of the water to the Ganges, compared to the two-thirds supplied by the Alaknanda River. Discounting the output of the Bhagirathi by emphasizing the Alaknanda, I believe, shows that the government wants to minimize the issue. As for the purity of the water, the government again sought information from a committee of experts. The National Environmental Engineering Research Institute determined that the Tehri Dam project was not expected to affect the purity of the water because the reservoir acts as a 'static container' where the water is constantly moving, thus disallowing pollution and sediment buildup (Joshi 2006). However, insinuating that a static container features consistently flowing water and that the movement would prevent pollution are rather ridiculous assessments of this potential ecological problem. As well, Mr. Bisaria explained that pollution is already noticeable, contributed to by the remains of Old Tehri at the bottom of the reservoir. Additionally, he explained how proposed water-sports development on the reservoir, including gas-powered boats, could further add to the water’s degradation.

CONCLUSIONS & REFLECTIONS

The creation of the Tehri dam has created dramatic social, economic, and cultural changes in the community and region. Some of the relocated people have enjoyed benefits directly related to their relocation, with many of the new settlements having obtained significant improvements in infrastructure. In addition, the improving status of women in the relocated rural communities is a clear improvement, brought about by better access to

Figure 6. Map showing road connection between New Tehri and the reservoir. Cartography by Alvin Rentsch, Kevin Devine, and author, February 2008.
education. The water and electric outputs that the dam has begun generating should have positive effects on the entire region.

Unfortunately for the thousands of displaced people, the negative results of the Tehri Dam and its byproducts far outweigh the positive progress that has been achieved. The dam’s environmental effects have altered the lives of the relocated people, and brought about significant negative economic impacts, urban problems, and religious and cultural change. The colder and windier weather conditions have made it unbearable to conduct evening activities outdoors, as politicians can no longer hold after-work debates and shops close because customers have gone home to get warm. Furthermore, proposed economic benefits did not meet expectations as individual families succumbed to bureaucratic loopholes and corruption. The local perception that the government built a city to house displaced people then left it full of problems is well-evidenced by complaints of inaccessibility (both within the community as well as to the surrounding region), few employment opportunities, lack of assistance for people acclimating to new environments, and religious disconnection from the sacred river. Even personnel connected to the dam and affiliated with the government express some concern for the situation. The relocation of the thousands of people that took place in Tehri and the resulting effects it had on the community has been described by the leader of the opposition Chipko movement, Sunderlal Bahuguna, as “the end of a civilization” (Prashant 2004). Though by keeping memories of Old Tehri alive through re-created symbols and word of mouth, the beloved old and close-knit community will never fully fade from view like the physical town itself did. Yet, additional government action in New Tehri to provide more assistance to the transitional residents, create additional jobs, and make improvements in regional accessibility, could allow the residents to better accept their new community and create a fresh sense of place amongst their new surroundings.

NOTES
1. Formerly a region in the state of Uttar Pradesh, Uttarakhand was created in 2000 due to its common language, religion, and environment (known as Uttaranchal until December 2006).
2. The World Commission on Dams was an independent and multi-national group launched in 1998 that researched many of the issues associated with large dams around the world and concluded in 2000 with the release of several reports, of which are presently used by organizations such as the United Nations Environment Programme (UNEP).
3. Actual names of informants have been changed as to protect their identity.
4. Government euphemism for relocation sites.
5. Type of millet used for making pudding; regional specialty of Uttarakhand.
6. Headed by the Minister of Science and Technology and Ocean Development, and including the Central Water Commission of India, and the Central Electricity Authority of India.

REFERENCES
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