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# TAMING THE TEESTA: EXPLORING THE HOLISTIC EFFECTS OF HYDROELECTRIC DAM DEVELOPMENT ON THE TEESTA RIVER THROUGH DOCUMENTARY FILM

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*SIT Study Abroad*

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Abstract

*Since time immemorial, the Lepcha people have called the Himalayan region that makes up the modern state of Sikkim their home and have held sacred the rivers, mountains, and forests that make up the biologically diverse region. Over the past two decades, India's rapid development has generated a powerful thirst for electricity, and the country has increasingly looked to the cold, powerful rivers thundering from the Himalayas to supply that desired power. Hydroelectric projects have been proposed and implemented throughout the Himalayan region. Nowhere, however, are the dams as numerous or their effects as acutely felt as in India's northwestern state of Sikkim, where a 'cascade' of run-of-the-river hydroelectric projects is springing into existence. There, on the Teesta River, multiple dam projects threaten the rich biodiversity of the region, the livelihoods of those who live along the Teesta's course, and the very existence of the Lepcha people's most cherished river.*

*Through documentary film, this project examines three crucial and oft-overlooked repercussions of hydroelectric projects on the Teesta River: the threat posed to the endangered Golden Masheer fish, the problems faced by those who receive compensation from the National Hydroelectric Power Cooperation for damages caused by dam development, and the degradation wrought upon the Lepcha people's cultural identity. The film does so by examining the individual stories of stakeholders who feel the effects of these ramifications most severely. Through formal and informal interviews with stakeholders and experts alike, this film offers a holistic perspective of and draws awareness to the river as the region's pulsing lifeline. Additionally, the project sheds light on the reasons India has turned so fervently to hydroelectric development. Finally, the film looks to the future in an attempt to spur dialogue among Indians and interested parties around the globe.*

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## Introduction

Between 2000 and 2010, India's GDP grew at a rate of 7.2 percent per year. Such meteoric growth has put enormous strain on India's environmental resources and has brought about intense contestation 'between state, citizens and industry for land, water and forests in the recent years' (Banerjee and Sood, 2011, p. 4). This strain has been evident in diversion of forestland to industrial development, groundwater overuse, and the pollution of both air and water resources—effluence which has already begun to affect the health and livelihood of millions in India.

This rampant growth has additionally coincided with increased international pressure on India to reduce greenhouse gas emissions, adopt environmentally friendly policies, and embrace a more 'green economy' (Chandy et. al., 2012). Hydroelectricity has for many years been seen as a green alternative to the many fossil-fuel-based forms of electricity generation on which India has largely relied to date. By the year 2030, India's per capita carbon emissions are expected to triple due, in large part, to the country's use of coal for energy generation. At present, India derives half of its energy from coal (Saxena, 2004, p. 12). Although hydroelectric projects are expensive and require long and arduous periods of development, the fact that they rely on renewable resources for energy production has aligned them with India's efforts to adhere to the 'green economy' concept. The fact that the dams themselves require a large workforce to implement and generate work for domestic corporations has only accelerated the speed at which India has turned to hydroelectric power as an energy alternative.

Hydroelectric development, however, does come with disadvantages. Since the push for hydroelectric power (HEP) projects began in the 1990s, dam construction across

India has drawn the ire of environmental groups and concerned citizens alike. Those who oppose the implementation of HEP projects point to loss of agricultural land, loss of wildlife habitat and biodiversity, altered river flows, and destruction of cultural capital as adverse consequences felt by affected peoples and ecosystems (Chandy et. al., 2012). Many are now recognizing that, while hydroelectricity may be sustainable in that it relies solely on a renewable source of energy, the repercussions of dam development might not represent a sustainable model of maintaining livelihoods and natural resources. While short-term benefits of hydroelectric development as a sustainable model are certainly enticing, 'a renewable energy source can easily become finite if it is used in an unsustainable way' (Deb, 2015).

Sikkim is a small mountainous state renowned for its biodiversity and forests covering nearly 50% of its land area. It is a key player in India's North West region that has been identified as 'India's future powerhouse' (Chandy et. al., 2012, p. 117; Ghanashyam et.al., 2014). In an aim to harness the 5284 megawatts (MW) of hydroelectricity estimated to exist in the tiny state's abundant water resources, roughly 25 HEP projects have been proposed or are under various stages of development. The river Teesta, which tumbles from the base of Mt. Kangchenjunga through the heart of Sikkim before making its way out of the mountains, has itself been slated for nearly six projects, the most notable of which are the Teesta III (96% completion) and the completed Teesta V (Ghanashyam et.al., 2014, p.2). Dam construction along the course of the Teesta has been touted as a 'cascade of hydroelectric projects' (Madhusudan et. al., 2013, p. 6). Little research has been completed on the cumulative impact a series of smaller dams might have on a riverine ecosystem, while much attention has been paid to the 'mega

dams' that have been constructed elsewhere in the Himalaya. The Government of Sikkim (GOS) has eagerly backed the development, completed in large part by private companies, in the hope that increased revenue from energy assets can be turned toward development goals regarding education and other development initiatives. The current government also promotes the notion that Sikkim can become an energy-independent state at the completion of the proposed HEP projects.

Sikkim finds itself uniquely enabled to accommodate HEP development owing to its geographical make-up. The canyons of Sikkim offer steep gradient to the rivers that flow through them and, as a result, dams there 'do not involve inundation of large areas and consequent resettlement' of large percentages of the local population (Chandy et. al., 2012, p. 2). This has been the case for much pushback against HEP projects in other parts of the country, such as the high-profile Narmada Dam, where a much wider valley required the submersion and destruction of large swaths of forest and farmland. Additionally, Sikkim remains one of the most sparsely populated states in India, and this has allowed for a much lower number of displaced peoples during the construction of the dam projects that have already been implemented there (Ministry of Environment, 2007). The steep gradient of Sikkim's rivers also allow for the utilization of run-of-the-river damming schemes, which divert water through tunnels and make use of the waterway's natural power, rather than damming large amounts of water. Yet, the same adverse affects of HEP development are also at play, and many are made more acute by the unique environmental and cultural factors that distinguish Sikkim.

The Teesta Stage V Dam near Dickchu, North Sikkim, is the first to be implemented 'in the six stage 'cascade' plan to harness 3635 MW of hydropower' along a

173 km stretch of river in Sikkim (Menon and Vagholikar, 2004, p. 1)[1]. It also offers a perspective of the adverse repercussions of hydropower development in the region. From the initial planning stages, the project showed signs of a lack of communication with community members in the area and issues raised by local action committees were only vaguely taken into consideration. As the project moved forward, clearance to begin implementing the project was given by the GOS before required studies to appraise the project's environmental impact were completed (Dutta, 2015, Personal Interview). During the construction process, tunneling and blasting led to an increase in landslides, which cracked houses and threatened the lives of area residents, and landslides continue to coincide with the release of water through the surge shaft now that the project is completed (Sharma, 2015, Personal Interview)**.** Many of the residents facing damage to their homes due to tunneling and subsequent increased seismic vulnerability of the region have had a hard time gaining compensation for the destruction, as 'only those whose homes or lands were going to be submerged were listed' as project-affected peoples (Menon and Vagholikar, 2004, p. 3). Furthermore, the stretch of river directly below the Stage V dam exists only at an extremely low flow for a large part of the year. In fact, according to a 2013 site inspection report on the proposed Teesta IV Dam, 'ecological flow was not a parameter that was optimized in the planning process' and 'downstream flows were effectively a consequence of maximizing hydropower potential' rather than set to ensure the continued existence of the river's ecology (Madhusudan et. al., 2013, p. 6). As the battle rages over the implementation of the remaining hydro projects proposed

[1] Teesta V is currently the largest project in the six-stage scheme producing 510 MW of power; however, the partially completed Stage III dam upstream near Chungthang, North Sikkim will, upon completion, produce 1200 MW of power.

for the Teesta, Stage V has taken a central role in exposing the repercussions of hydropower schemes in the region.

The pace of India's development in past decades has been extraordinary. In this growth-oriented environment, a wealth of human narratives has been constructed and documentary film has taken a large role in the telling of India's story. Since India's independence movement, documentary film has aligned itself with the 'rise of the masses as a political force' (Rajagopal, 2012, p. 2). Documentary film has been used to expose injustices, end suffering, and tell the amazing stories of thousands of people who have grown, revolted, and lived in India. To attempt to situate oneself in this profound history of storytelling through film is a challenging task.

Documentary film has long stood out in its ability to 'mediate reality as it really [exists]' (Rajagopal, 2012, p. 8). The medium allows for visual and auditory narrative construction along with a large degree of flexibility in delivering both factual and story-based information. As such, film is uniquely positioned to 'represent sensory *and* emotional experience,' which, when coupled, evoke powerful and nuanced responses from the audience (Pink, 2010, p. 57). Documentary also has the ability to harness narrative, specifically human-based story, to its advantage. As a documentary device, narrative evokes a more immersive and participatory environment for the viewer. Documentaries that hold narrative—and, particularly, human story—central to their argumentative structure become engaging in ways traditional 'talking-head-based' documentaries cannot. 'The use of narrative as a route to knowledge' specifically through documentary film is an emerging and effective practice that has garnered much attention in recent years (Pink, 2010, p. 24).

As noted in the following review of pertinent literature, past bodies of work on the issue of HEP development along the Teesta River, specifically those that place importance on narrative, have remained focused on specific issues relating to dam development or have dealt only briefly with a larger breadth of issues on an extremely superficial level. Additionally, a lack of human narrative is evident in the existing bodies of work, with few explorations of individual narrative in relation to the Teesta dams' far-reaching effects. Taming the Teesta investigates HEP issues along the Teesta's course through a humanistic- and narrative-driven lens in order to offer a holistic view of the repercussions of HEP development on the Teesta. This project portrays individual stories of affected stakeholders who represent the broader issues at hand. Through these distinct narratives and the issues they represent, this film provides a holistic view of how the cascade of hydroelectric development along the Teesta has affected the river and changed how the river supports the ecosystems and communities through which it runs.

To a large extent, the body of current work investigating Sikkim's hydroelectric development has fallen into two realms: analyzing scientifically the environmental and quantitative effects of HEP projects through written, academic methods, and exploring the cultural implications of the same development through creative means. Very little overlap—meaning creative exploration of anything outside of human and cultural impact—has been attempted, and the methods and areas of research have remained within their own realms. Therefore, a number of specific, yet central, environmental issues have largely been ignored.

The region surrounding the Teesta River plays host to a set of unique ecosystems as rich and diverse as the socio-cultural makeup to which the region also plays host. The

Himalayan region in which the area is situated has long been a repository for rich biodiversity. The region provides ideal habitat for humans and a unique and globally significant set of flora and fauna (Ministry of Environment, 2007). The diverse repercussions of dam development affect both cultural and ecological richness, as the dams have had far-reaching effects on the environment up and down the river's course as well as on the culture of those who interact with the riverine ecosystem.

The Lepcha people, who have long called the upper reaches of the Teesta River known as Dzongu their home, have garnered particular attention in both academic and creative works. The Lepcha have developed strong ties to the natural resources that proliferate in the Himalayan foothills. Their advocacy first drew attention to the dam development within Sikkim (Little, 2009). As stewards of the land, the Lepcha people have garnered recognition for their 'deep knowledge of botany and ecology,' and for the ways in which their culture, customs, and traditions are 'intrinsically linked to their deep bond with nature' (Little, 2009, p. 1; Lepcha, 2013, p. 73). When the anti-hydroelectricity movement in Northeast India began drawing significant attention in 2004, the protest 'emanated from the Lepcha Dzongu Reserve.' The organization Affected Citizens of Teesta (ACT) took center stage in a movement that ultimately resulted in the government scrapping a number of hydroelectric projects in Sikkim (Giri, p. 3). This ongoing movement, which in the past involved marches and two cornerstone hunger strikes undertaken by ACT members, has served as the focal point for the majority of analysis on the subject of HEP development along the Teesta. Little (2009) and Giri hold that the paradigms of Lepcha culture in relation to the Teesta as well as the Lepcha people's anti-hydroelectric movement are paramount to the HEP issue in the region as a whole. The

inordinate amount of focus given to issues of Lepcha cultural degradation is certainly not unwarranted. However, the many pieces examining the issue from this perspective have begun to take on the same feeling and largely lack unique information or assessments. Additionally, much of the current literature focusing on Lepcha cultural heritage has done so at the cost of in-depth analysis of environmental issues.

Scientific case studies regarding biodiversity and the detrimental effects of hydroelectric construction on the region's ecology have also abounded. However, the large majority of case studies has largely covered a number of different issues rather than explore a single environmental impact in depth. Degradation of the environment is always a byproduct of large-scale development, and while the HEP projects in various stages of implementation require less destruction than other mega-projects implemented on the Indian subcontinent, they still pose a profound threat to Sikkim's rich ecological diversity (Chandy et. al. 2012). Additionally, much consternation has been directed at claims that the government and the private companies developing the hydroelectric projects have been cutting corners during the construction of the dams. In fact, Lepcha (2013) asserts that the GOS has shown 'total disregard for conservation of the fragile ecosystem.' Likewise, Sharma et. al. point to a lack of communication between the government and the people, noting that 'local and indigenous communities strongly [argue] that they are not directly involved' in the planning process of HEP development' (p. 13). All present literature on the topic of dam development in the region notes that the dams are and will be detrimental to the ecology of the region, and the general consensus is that literature on the topic has 'raised several serious issues with unanswered questions' (Sharma, p. 12).

Chandy et. al. explore road cutting on mountain slopes, landslides caused by road construction on fragile land, dumping of earth on forest vegetation, and tree mortality due to loss of water from soil related to tunnel construction, paying special attention to environmental impacts of the dam construction process (2012). Sharma et. al. also shed light on a large number of environmental repercussions, including river flow and geo-hydrological concerns related to seismic activity in the region, leading to the question of whether 'water is a renewable resource.' It is interesting to note that both Chandy et. al. and Sharma et. al., which stand out as attempting to cover the most numerous effects of dam development, approach the environmental repercussions of dam development through a cultural lens. The former does so by investigating the 'community perceptions of the impacts of the hydroelectricity projects' through the use of qualitative 'in-depth interviews and… focus groups' (2012, p. 4), while the latter's work was 'carried out to assess the conflicts between different stakeholders and the *social* undercurrents around hydropower projects' (2014, p. 3). This suggests, once again, a strong pull to cover the human side of the HEP development story along the course of the Teesta. In fact, the 2007 Carrying Capacity Study, conducted by the Centre for Inter-Disciplinary Studies of Mountain & Hill Environment, is, to date, one of the only purely empirically-based studies that spends time exploring the effects of hydroelectric development.

The 2007 study was brought about by the Indian Government's 1999 stipulation, included in the approval for the now-completed Teesta V dam, that 'no other project in Sikkim will be considered for environmental clearance until the Carrying Capacity Study is completed' (Ministry of Environment & Forests—Introductory Volume, 2007, p. 5). All-encompassing in its approach, the four-year study assessed Carrying Capacity in

terms of ‘various natural resources,’ including ‘water, land and air,’ while also paying attention to socio-economic and socio-cultural environments (p. 6). Therefore, the study is unique in the way it pays attention to cultural as well as ecological environments. The study’s exhaustive assessment of the region is concluded by a set of recommendations urging ‘in-depth environmental assessments of individual projects,’ a recommendation that has been largely ignored, according to Madhusudan (Ministry of Environment & Forests—Executive Summary, 2007, p. 224; 2013, p. 13).

The literature certainly indicates the dangers posed by a cascade of dam development along the Teesta, but largely left out of the academic body of work are in-depth analyses concerning the effect of hydroelectric development on fish populations, specifically the endangered Golden Mahseer. As noted by Mathur (2012), dams can be detrimental to fish habitats by creating barriers that make spawning impossible for native fish populations, starve them of necessary sediment, and destroy their habitat through decreased ‘environmental’ or ‘ecological flow’—the amount of water allowed to flow in the river below dam sites. If ecological flows remain high enough, fish ladders are installed to enable fish to pass safely around the dams to spawning grounds, in which case some effects might be mitigated. Yet, the vast majority of the dams already implemented in the region do not have fish ladders even though the GOS has required them on all projects (Dutta, 2015, Personal Interview).[2] However, critically endangered populations like the Mahseer might be devastated by dam development and the resulting fragmentation of their habitat even with such measures in place (Virdi, 2014; Ministry of

[2] According to reports heard in the field, a fish ladder does exist on the completed Teesta III Low Dam in West Bengal; however, a net has been placed across the ladder by dam workers, to capture any fish that might try to pass.

Environment, 2007). Additionally, as noted in a report on the proposed Teesta IV dam, ecological flow has been seriously depleted to an 'extremely low level' by the Teesta V Dam along the Teesta River, and 'ecological flow was not a parameter that was optimized in the planning process' of the dams (2013, p. 5-6).

An apparent theme that emerges from the body of academic work on HEP projects in Sikkim, apart from the missing investigations into fish population, is the lack of specific and in-depth investigation of any single effect of the dam construction. Instead, academics have amassed studies that shed equal light on each of the numerous repercussions of HEP projects. This has resulted in a quantity of reports, papers, case studies, and documentary films that report the same voices, record the same data, and portray the same viewpoints. In fact, Madhusudan calls for more, in-depth research into the effects of the dams in Sikkim, noting that 'there does not seem to be any reliable assessment of the impacts of these dams on ecology and wildlife' (2013, p. 5). At the same time, cultural and environmental issues have been viewed through two very different lenses, and largely as two separate consequences of dam development. If the culture, traditions, and customs of Sikkim and the people who live along the Teesta River are 'inextricably linked… to nature,' the issues surrounding hydroelectric development in the area should not be so fragmented. Instead, the river environment should be viewed as a holistic system that encompasses the vast and diverse cultural practices *and* ecosystems that the Teesta supports. Madhusudan notes that it is 'essential to assess the overall impact of [the HEP projects], both from the recent past and those in the pipeline,' rather than deal with the various issues 'in a piecemeal fashion' (2013, p. 13). This film project therefore is in a unique position to fill a vitally needed gap in the coverage of these

issues. By exploring key issues from the environmental and social realm of dam effects, this project adds a unique perspective to the ongoing discussion, and situates itself distinctively within the history of creatively investigating India's development narrative. Ecosystems, and specifically the Teesta's riverine bio-network, should be recognized as stretching from the biological life they encompass to the intangible cultures and traditions of which they become an integral part. In engendering that recognition through documentary film, the true cost of hydroelectric development can be better ascertained.

## Methods and Process

The production process took place along a broad stretch of the Teesta River in the Indian states of Sikkim and West Bengal. As the aim of the project was to ascertain the holistic effects of hydropower development along the course of the river, it required that I remain mobile; however, the project focused on three main locations: the lower reaches of the Teesta River near Siliguri, West Bengal, encompassing Teesta Stage III and IV lower dams, the middle stretch of the river near Singtam, Sikkim, surrounding Teesta Stage VI and V dams, and the upper stretches of the Teesta River at Dzongu, including the proposed Teesta Stage IV project. The piece is structured around these three, unique stretches of the Teesta River, as well as the stories of various stakeholders in each stretch of river. Specifically, I featured Mr. Shamip Chhetri, a fisherman from Siliguri, two affected people near the Teesta Stage V project, Mrs. Yogmaya Sharma and Mr. Lal Bahadur Lohar, and Mr. Tenzing Lepcha, a Dzongu resident and Lepcha activist.

My production period began with two-and-a-half days spent covering the lower reaches of the Teesta. I was based out of Siliguri, West Bengal, and hit the ground

running as I had planned. Due to the relative uncertainty of fieldwork, and the fact that documentary work in the field added another level of ambiguity to my process (e.g. film storage, necessity for good weather, translation, organization footage, equipment upkeep), I wished to gather as much footage as I could early on in my project rather than putting off the hands-on work until the later part of my field period. I additionally knew that I was attempting a lot by planning to cover such a large stretch of river, as travel would take time and always presented uncertainties due to landslides and other unforeseen hindrances. One drawback to this approach was that I wouldn't be able to spend time meeting with experts on the issue before shooting in order to double check secondary sources and coordinate my shooting. I made up for this drawback by emailing and speaking on the phone in advance of my arrival with my advisor Mr. Tenzing Lepcha, journalist Mr. Soumik Dutta, acting president of ACT Mr. Tseten Lepcha, and Mr. Shamip Chhetri regarding my approach and plans. I also met with Mr. Soumik Dutta on the afternoon of my arrival in Siliguri regarding on-the-ground realities including communication once in Sikkim and transportation times. I additionally met with Mr. Shamip Chhetri the evening of my arrival in order to discuss our plans for filming and gain background information on the Golden Masheer and the situation of the Teesta at its lower reaches. I also wanted to spend time with Shamip in order to get to know him as a person and friend. This aligned with a production goal of mine to really get to know the characters I would be featuring in my film. I hoped that this would allow me to gain a fuller picture of their story, and make the interviewing process much easier and more conversational.

The next day, I spent more time with Shamip and performed a casual interview with him in which I talked to him about the lures he and a friend make by hand for angling for Golden Masheer. My idea for ‘casual interviews’ stemmed from my wish to get natural, unprompted interaction with my characters on film, especially doing something besides sitting for an interview in a traditional sense. To do so, I attached a lavaliere microphone to the subject to capture quality audio and then filmed handheld in order to remain flexible to the subject’s actions. In this case, this technique allowed me to keep up a casual conversation with Shamip about his lure making and interest in fishing, while zooming and focusing to feature him, his lures and tools in turn. Such flexibility would have been impossible with a traditional interview had my camera been mounted on a tripod. Furthermore, allowing the subject to talk conversationally while performing an action or doing something in the field added a dynamic to my filming that is not usually present in traditional documentary films. This process aligned with my hopes of portraying the real human narrative of my characters, which would have been harder to realize had their only spoken contribution to the film come from a traditional ‘talking head’ interview. This practice was further made possible by the use of the Image Stabilizer on my camera lenses. This, however, meant that the in-camera audio was ruined, because the stabilizing motor makes a small ‘whirring’ noise as it corrects for shakes in the image. Therefore, I was reliant on the audio from my lavaliere microphone for these casual interviews.

The use of the Image Stabilizer in both of my lenses was something I relied heavily upon due to the fact that much of my shooting was done handheld. Since I would be spending such a short time in the field and staying mobile throughout the production

process, it was much easier to remain handheld and spend less time setting up and taking down my tripod. Additionally, capturing sensitive footage around dams and under the watchful eye of security guards meant that I would not have the chance to set up my tripod, which would draw far too much attention to the fact that I was indeed filming the dams. Therefore, I knew quality background audio would be a challenge with my documentary because I did not have the equipment or manpower to operate a separate microphone for gathering quality location audio. I tackled this as best I could through two practices. I used my lavaliere microphone to gather background audio at each major location I shot, recording 30+ seconds of *location noise* to fill in the background of my film. Of course, lavaliere microphones are not built for recording large spaces and the diversity of sounds that come from a specific environment, but the audio I gathered with mine was certainly workable for my project. I also gathered background audio by turning off the stabilizer in whatever lens I was using and shooting a 30+ second shot to allow the camera's built in microphone to capture the location audio. I identified these 'audio shots' by overexposing the shot itself for easy identification when reviewing footage. Unfortunately, the audio gathered from the in-camera microphone does not gather very high quality audio, but it did well for river noise and audio in forests and other quiet settings.

The afternoon of the second day, I gathered footage of Siliguri and the river that runs through the town—a tributary to the nearby Teesta—on my way back and forth from Shamip's house. I gathered shots of the busy traffic, which I wanted to counterbalance with the peaceful nature and river shots I hoped to gather further upstream, along with footage of the river and the many uses it was put to in this heavily populated area. At

Siliguri, the rivers flow wide and slow out of the foothills to the north and people use the water to wash clothes and cars, bathe, fish, and gather the stone and gravel that is washed from the mountains. That afternoon, I also gathered footage of electrical lines near Shamip's house that I hoped would be valuable for my introduction.

That evening, I experienced my first speed bump when Shamip and I tried to head out to the Teesta to film for the evening. Our transportation, which involved a rickshaw to a shared jeep, ended up being delayed and our sunlight was soon gone. Instead, I planned to spend an extra day on the lower reaches of the river with Shamip the next day, in order to spend a whole day filming him fishing.

The next day, I awoke early to meet Shamip and we headed out of Siliguri towards the Teesta. I got my first glimpse of the river and spent a while filming the Teesta Stage IV Low Dam, which was under construction. There was a security guard nearby, so I pretended to take photos of Shamip and his angler friend who had joined us while filming the construction. I spent the rest of the day filming Shamip and his friend while they fished, and I gathered b-roll of the river and the West Bengali jungle. It turned out to be fortunate that I was able to spend a full day alongside the river at this location because it meant that I got to witness the drastic change in water volume that occurred around midday. As Shamip had informed me would happen, the river began to drop quite visibly, although nothing could have prepared me for the amount of volume the river would lose as the gates were shut upstream as the completed Teesta Stage III Low Dam began storing water for release and electrical production later that night. I was able to

gather a number of ‘before shots’ when we arrived and the river still held most of its volume.[3]

By the time the river had fallen to its greatest extent, and as the sun began to set behind the green ridges that surrounded us, it was hardly a fourth of its original flow. I had known how dams could inhibit the migration of fish moving upstream, but I had no idea such a drastic and violent change was taking place to the river’s ecological flow on a daily basis. I learned from Shamip how the fluctuating water destroys the algae that clings to rocks in the river and provides a primary source of food for the Golden Masheer (Dutta, 2015, Personal Interview). Sure enough, the rocks that had emerged from the retreating water were bare and walking across them was easy, something that from my experience with rivers and ocean tides I knew shouldn’t be the case. I gathered ‘after shots’ from the same locations at which I had shot previously to convey the change in flow I had witnessed. I also conducted my main interview with Shamip, asking him about his passion for fishing, the Golden Masheer, and the changes he had seen in the river since the dam projects had been implemented. I was fascinated to learn from him how small of a relationship the people in the surrounding area really have with the Teesta because they do not rely on its fish as a primary food source. Rather, he noted how little people actually go to the river and see what’s happening to it, and how the group of recreational and subsistence fishermen he belongs to are some of the few who have their

[3] It’s interesting to note that the volume of water we witnessed in the river before the water was shut off actually greatly exceeded the normal, uninhibited flow for this time of year, which fell in the middle of the dry season. In order for the dams to produce electricity, uncharacteristic volumes of water must be compounded and then released.

fingers on the pulse of the river in this section (Chhetri, Personal interview, April 15, 2015).

Watching the river disappear and nearly die that afternoon, I felt a powerful emotion and urge to tell the story of the river I was getting to know. It seemed absurd to me that people could not care that their river was waning to a trickle each day and their native fish species was taking care to migrate up separate tributaries into Bhutan rather than risk a journey up the Teesta (Chhetri, Personal interview, April 15, 2015). However, Shamip reminded me about the mindset of those in the area, who mostly farm for a living and many of whom live below what the Indian Government considers the poverty line. He helped me realize that, therefore, many consider the issue of 'a few fish' to be at the bottom of their list of concerns. Although I certainly understood the reasons for the lack of appreciation of this issue among the local population, it resulted in me feeling even more strongly about telling the story of this section of forgotten river.

The next day I arose early and caught a shared jeep to Gangtok. Along the way, I was stopped by a landslide and witnessed the completed Teesta Stage IV lower dam that had caused the unprecedented drop in water I had witnessed the day before. I spent the afternoon in the Sikkimese capital backing up my footage and recharging my camera's batteries. At this point I fully appreciated the logistics of gathering such a large volume of footage and keeping it organized and backed up. I kept with me two 1TB waterproof and shockproof hard drives on which I kept two copies of my footage in original and file-organized form. One I kept with me in my camera bag wrapped in an extra case and zip-

lock bag while the other I kept with my personal items wherever I was staying.[4] At the same time, I kept as much footage backed up on my computer and original SD card as storage space would allow. My goal was to keep my footage and project backups in as many locations as possible, so that if one failed or became corrupted, all of my efforts wouldn't go to waste. Of course, this meant that I spent an appreciable amount of time backing up my footage—more time, in fact, than I had initially expected—though I was able to integrate this into the process of organizing my footage.

To organize my footage after a day's shooting, I would first import the media onto my computer, to a folder labeled by the location at which I was shooting.[5] I would then import the media into my Adobe Premiere project, where I would organize the footage into 'racks,' or sequences of footage from a specific day or location. This made it easy for me to then go through the footage and pick out the best shots, label good audio snippets, and break the shots down into further subcategories to make the actual editing process much easier. At this point, I held off of any storyboarding of my footage from the lower part of the Teesta, and opted to wait to begin the actual editing process when I had a better picture of how my documentary's narrative structure would unfold.

The next morning, I arose early once again to catch a shared jeep to Mangan, in North Sikkim on the edge of Dzongu, the homeland of the Lepcha, where I would be meeting with and telling the story of my ISP advisor Tenzing Lepcha. Along the way, I

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[4] In Siliguri, due to recommendations I received from Mr. Dutta, I kept all of my valuables with me in my backpack while shooting in the area. This added a lot of weight and effort while shooting in the heat, but ensured that my gear was safe.

[5] I didn't pay as much attention to the date I shot footage as I have during other projects, because I knew my final product would not be organized by my shooting schedule. Thus, I was able to shoot parts of the documentary 'out of order' to better fit the schedules of those I worked with.

passed the submersion area of the Teesta V Dam, although I was not able to get any footage of the area due to the constant bumping and jostling of the jeep in which I was traveling.

After meeting with Tenzing and obtaining the proper permits, we traveled into Dzongu and settled at his home in Hee Gyathang**.** I spent the afternoon planning the next few days of shooting with Tenzing and gathering some b-roll of the surrounding area. The next few days were extremely busy as I chased Tenzing up and down the hills of Dzongu shooting scenery shots, conducting interviews with Tenzing, and filming the dams along the Runchu River as well as the proposed site for the Teesta Stage IV dam.

The first day, I traveled with Tenzing's brother to North Dzongu and wound along the Runchu River to the Panam Hydro Power project site. The day was cloudy and moody, so I was able to gather some wonderful shots of the unbelievable scenery. We traveled through dense jungle and incredibly steep hillsides leading down to the churning Runchu. The villages we passed consisted of brightly colored houses and were perched on the sloping valleys surrounded by vibrantly green, terraced farmland. Countless streams thrashed their way down the steep cliffs in multi-terraced waterfalls that thundered briefly as we drove past and then were swallowed by the jungle. We stopped often so I could shoot, and I tried to gather multiple angles of each location or natural feature I was capturing. I knew lighting was perfect for shooting and that I most likely would not be returning to this remote part of Dzongu, so I attempted to shoot as much scenery footage as possible. I captured a number of shots of clouds streaming through the trees by taking lengthy shots from my tripod that could then be sped up in postproduction so the clouds would appear to move faster. During this busy day, I visited two separate

HEP projects, took a dip in a hot spring that had been formed when the National Hydroelectric Power Company (NHPC ) was drilling into the rock near a dam site to conduct tests, got stuck in the mud and had to load the back of our jeep with rocks and ride on the rear bumper in order to provide the traction that got us free, and rounded off the day with a flat tire.

The next day, I traveled with Tenzing down some ridiculously steep trails to the Teesta River far below his home and the proposed site of the Teesta Stage IV project. On the way to the proposed site, I gathered a number of casual interviews with Tenzing as he showed me a sweeping view of the Teesta River valley, a sacred lake full of a rare species of tiny fish, anti-NHPC graffiti, and the best fishing holes along the creek that we followed down to the Teesta. We met up with two of the young men Tenzing is mentoring and spent the day gathering footage of the river and fishing. I conducted my main interview with Tenzing along the banks of the river. I asked him about the hunger strike he was involved in during 2007 and 2008 that eventually resulted in Sikkim's Chief Minister scrapping four hydro projects that had been planned for Dzongu. We also talked about the reasons he is so passionate about preserving the environment and Dzongu, and his plans for the future. I wrapped up the day with a long hike up the steep trail on which we had descended to the river, sweating profusely as my camera bag bounced against me and off of trees.

That night, we enjoyed the fish Tenzing had caught during the day, stewed whole to preserve their protein content. We later enjoyed 'cheechok,' a drink made from fermented millet, and talked late into the night about the hydropower projects and our plans for the future. As a journalist, it was a powerful experience to live with the person

whose story I was telling, and I felt that I was truly able to understand Tenzing and his story by spending so much time with him at his home and in the area he knows so well and has fought for so passionately.

My final day in Dzongu, we traveled down to the house Tenzing is building at the banks of the Teesta River—an area that will be submerged if the Teesta IV project becomes a reality. I spent the day organizing footage and filming Tenzing working on his crops and caring for his animals. I also completed another casual interview with Tenzing during which we spoke about the logistics of the proposed Teesta IV project. On our return to Gangtok the next day, we stopped alongside the completed Teesta V power project further downstream to film the dam from afar. I was able to appreciate and film the most visible of Teesta V's repercussions, notably the large submergence area and extremely low flow in the Teesta River below the dam site. When we stopped to film the dam, I had to be very discrete about my filming and, per Tenzing's request, point my camera rapidly at a nearby tree if a car came around the bend while I was filming. Tenzing was adamant about my 'acting the tourist' while filming and working on my project as he didn't want to draw much attention to the fact that we were looking into dams. After all of his work fighting the dam projects, which has involved his hunger strike and an earlier arrest during his college years, Tenzing was very weary of being seen in sensitive areas. Unfortunately, this limited his usefulness in helping me gather footage of the dams, but of course this was just a tradeoff to working with and telling the story of someone who has fought so tirelessly against a development-oriented government. During our day working our way downstream and covering the Teesta V project, I was interested to learn of Tenzing's less-than-sterling relationship with those

affected by the project. When I inquired about setting up interviews with farmers along the stretch who have seen springs dry up, been pushed off their land, or been denied jobs in the HEP projects—all of which I knew to be repercussions felt by the community—Tenzing told me that he and many of the ACT members don't look highly upon many of these people because they are seen as having 'taken compensation from NHPC for the damages caused by the dam, and then not taking any further stance against the projects' (Personal observation, Teesta V Hydropower Project, April 21, 2015). I gathered that those like Tenzing who have put their livelihoods and reputations at risk fighting the power projects view many of the people in the area as having given in too easily to NHPC's wishes. Late that evening, we made it to Gangtok and I said goodbye to Tenzing before settling into my hotel. I spent the next day organizing my footage and editing the introduction to my documentary. When editing such large quantities of footage—by this point I had gathered nearly 50 gb of raw footage—I find it necessary to keep my project as organized as possible. I keep the audio and footage organized by location and gather all of my footage into 'racks,' or sequences filled with all of my raw footage spread out on a single timeline. This makes it easy for me to mark the footage, identify the best shots, and view my footage holistically as I begin to plot the storyline. I also had to spend time syncing the audio gathered from my off-camera lavaliere microphone to the footage of each interview, which I did after completing a cursory edit of the raw interview audio. This involved changing the audio file from a mono, or single-track, file, to a stereo file, adjusting the volume, and removing any persistent background noise. I learned a great deal about editing audio during the course of this project.

The day I returned to Gangtok, I managed to finish the final edit of my introduction before falling extremely ill with a sudden headache and fever. Unfortunately, I then spent the next four days bedridden and two days after that getting my strength back, during which time I was able to work only minimally on my project and was forced to postpone some of the interviews I had planned to conduct while in Gangtok. Because I hit the ground running and had kept very busy during the first week of filming in case something like this happened, I wasn't worried about getting my project finished; however, in retrospect I wonder if it was the fact that I sprang right into a stressful and taxing field environment with no rest days that made me susceptible to falling ill. According to the doctor I eventually visited, though, my illness was viral and could very well have been a mosquito-borne infection (Dengue Fever), and it would have mattered less that I was working my body too hard during the first period of filming.

When I finally began recovering, I completed rough edits of the footage I had already completed, encompassing the footage I had taken on the lower stretches of the River and my filming in Dzongu. I was then able to complete an interview with the journalist with whom I had met in Siliguri, Mr. Soumik Dutta, which I conducted in my hotel room. Having reported on the hydroelectric projects in Sikkim for over a decade, he was extremely knowledgeable and I was able to gather background information about the Teesta Stage V and the plight of the Golden Masheer to use in the documentary. By this time, I had a better idea of how my documentary would be laid out, and was able to conduct my interviews in a more precise manner and get the audio portions that I needed to back up my story.

The day after my interview, I headed back towards the Teesta Stage V project site with the goal of assessing firsthand what the impacts of a completed dam look like on the Teesta. To do so, I hoped to interview the affected people with whom I was unable to connect through Tenzing. In Singtam, about an hour's ride south of Gangtok along the banks of the Teesta, I met up with Mr. Rupesh Sharma, a part-time journalist and businessman whose many connections along the stretch of river I hoped to cover proved invaluable. We traveled north along the river to his home village of Makha, which is situated within the 11 km zone that stretches between the Teesta V dam and its downstream powerhouse. Rupesh graciously welcomed me into his home for the next few days and we became fast friends as we planned our filming schedule on the night I arrived.

We started the next day by visiting the NHPC head office just downstream from Makha, were we were hoping to get permission to film inside the Teesta V powerhouse and at the dam site. I knew that the chances of obtaining such permission were very low, but still welcomed the opportunity to try, as well as glimpse the inner workings of the company I had heard so much about. Eventually, after bouncing from office to office, our request was turned down because 'allowing foreigners to film any of the Teesta Stage V infrastructure was a national security threat' and I would be required to receive permission from the Sikkim Minister of Power if I hoped to film at the site. There was, of course, little chance of receiving permission from the government, and the process, which I had looked into before arriving in Sikkim, would take time.

Instead, we worked our way upstream and stopped at one of the heavily guarded access tunnels that protrude from the side of the mountain above the power house and

lead into the head-race tunnel that delivers water from the dam site upstream. There, I cautiously filmed the tunnel mouth and some of the security guards present at its entrance while Rupesh inquired as to whether we would be allowed to enter. We were denied this request on the same grounds as we had been turned away from the powerhouse. The security guard began asking us questions, visibly flustered by the presence of cameras. Rupesh produced his state media identification card and placated the guards to a certain extent, although the atmosphere was still somewhat tense. We gave the guards some vague information about my project, mentioning that it had to do with development and green energy, and learned that only the main, state-sanctioned television station was allowed access to the tunnels we had attempted to film.

We then proceeded upstream to Dickchu, a town that sits along the base of the wide, green water body backed up behind the Stage V dam. We stopped just outside of town near the construction site of the powerhouse for yet another hydroelectric project, this one along one of the Teesta's tributaries that met the Teesta V reservoir near town. Driving through this area, one does get the sense that the GOS would dam the drainage ditches alongside the roadside if they could. Rupesh had a brother who worked for the company initiating the project who we hoped would be able to take us back into the site, where we could get some of the footage we had tried to get at Teesta Stage V of the inner workings of a dam. We met him at the entrance to the site and had almost passed through the gates unhindered when we were stopped by an important looking man who began asking us what we were doing at the site. Rupesh and his brother did some fast talking and we were informed that we could tour the site as long as I left my camera bag behind

in the security office. I did so graciously but slipped my small GoPro camera into my pocket in the hopes of filming some footage once inside the site.

That afternoon, we were taken inside the tunnels of the Dickhu project, where no one seemed to care that I was filming the ongoing construction, and I was able to see firsthand how hydropower projects in Sikkim operate. After our tour, I interviewed Rupesh's brother about the type of laborers who come to work on the project and inquired about a fatal accident that had recently occurred on site, which was mentioned to us during the site visit. For the interviews I conducted during this excursion, Rupesh was able to act as my translator. On our return trip to Makha, we visited an abandoned school at the edge of the reservoir, which had been abandoned after it began being flooded every rainy season due to its proximity to the submergence zone. I also had the opportunity to conduct an interview with a woman whose house had been affected by the 2011 earthquake, and learn about her opinion of the HEP development in the area.

The next day, Rupesh and I set off from his house on foot, stopping first to interview the local Panchayat president. The man acknowledged the negative effects of the dam development that had been felt in the area, but I was surprised to learn that he thought the arrival of NHPC to the Teesta River Basin was, on the whole, a 'positive thing' because the projects *had* brought development. Next, we traveled down more steep trails to the house of a local farmer who had sold some of his family's land near the powerhouse site to NHPC. I learned that a middleman had taken the money during the transaction, and his family had never seen a cent of the compensation they were guaranteed. I asked the man about his misfortune and the effects of the dam construction in general. I then gathered b-roll of his house and his family, who had all gathered during

the interview. This was certainly one of the times during my production process that I really hoped my film could do something to raise awareness about what happens when development, like the HEP projects in Sikkim, takes place.

The next day, I worked with Rupesh to translate the interviews we had conducted the day before, and I worked to organize the footage I had taken with him into the middle section of my documentary as well as process all I had seen, heard and learned. I next returned to Gangtok to begin the five-day, intensive editing process and to write my ISP paper.

## Description of Creative Work

Taming the Teesta was framed around three distinct sections of the Teesta River I covered, and was further structured by the overarching story of my journey up the river as I learned about the dams and met with stakeholders. Along with the three sections of river—Lower, Middle, and Upper—I included an introductory section and a conclusion. My aim was to show the diversity of effects that dams have brought to the Teesta River Basin, so each distinct section of river I covered encompassed different issues and featured dams at different stages of development. To tell the story of the river, I featured local stakeholders prominently in each section and used their interviews, matched with an interview with Soumik Dutta and my own narration, to fill in the gaps in the narrative. Mr. Dutta was extremely knowledgeable about the holistic issues of the dams' effects and was therefore able to provide the necessary background information needed for various sections of the documentary. I chose to feature my own story of learning about the dams in order to provide the viewer with easier access to the environment and story. By

narrating as someone who was also experiencing all of the pertinent issues for the first time, I can provide a perspective that is easily approached by Western and outside viewers, the main audience of my documentary.

In the introduction, I chose to feature some of my best shots from Upper Dzongu paired with a spoken narration about the dam issue in Dzongu performed by Tenzing Lepcha. I decided to have Tenzing narrate the opening in Lepcha because I felt his local dialect matched well with the feeling that I felt in Dzongu and was trying to evoke in my introduction. Of course, I hoped to use some of my best shots here to hook the viewer into the story and the Teesta River environment. This also adhered to a common narrative structure in which the last piece of the story is visited briefly at the beginning and then returned to later in the story.

Next, I returned to the lower reaches of the river to give a more detailed background of the dam issue and feature Shamip Chhetri and the plight of the Golden Masheer. I used the shots and sounds I had gathered in Siliguri to contrast with the natural beauty and calm that I evoked in the introduction. I chose to introduce Shamip slowly, showing him first in his home showing off his handmade lures and only later fully introducing him as a Teesta River angler when I began pulling clips from his interview. This structure allowed me to introduce Shamip in Taming the Teesta in the same way that I got to know him and acted to spike the audience's interest. In this section, beyond discussion of the issue of the Golden Masheer's declining population, I created a bit of personal narrative by describing my experience watching the flow in the river decease as the dams upstream closed their gates. This was a powerful experience for

me, and I hoped to evoke some of the shock that I felt watching the river die. In order to do this, I coupled my own narration with some of Mr. Dutta's comments on the river.

While the first main segment of my documentary had featured the river prominently, in the second section I wanted to tell the story of a dam, specifically the completed Teesta Stage V dam further upstream. I wanted to discover for myself and convey to my audience what a completed run-of-the-river dam looks like in Sikkim. In order to do this, I chose to talk about my own experiences filming and interacting with the NHPC in the area, describe briefly what a 'run-of-the-river' dam technically is, and weigh the repercussions of such a project by interacting with and interviewing local affected persons. I featured a bit of my own story dealing with security guards and filming inside a dam construction site to add a bit of excitement to the piece and give a sense of the tension that surrounds the dam issue within Sikkim. Of course, in order to talk about the real effects of dams in Sikkim, I found it necessary to give a brief description of the inner workings of the Dickchu Hydropower Project I toured coupled with my own narration and some of Mr. Dutta's comments to describe the technical workings of such a dam. Then, I was able to feature the story of Mrs. Yogmaya Sharma, whose house stands directly above the headrace tunnel for Teesta Stage V and was ruined in a 2011 earthquake, and Mr. Lal Bahadur Lohar, a farmer who sold his family's land to NHPC during the building of the Teesta Stage V project and then had his money taken by a middleman during the transaction. Using Mrs. Sharma's interview, I was able to discuss the issues of seismicity in the area and landslides caused by dam construction and tunneling in the area. With Mr. Bahadur's interview, I was able to convey a powerful story of a unique effect of hydropower development in Sikkim. I wrapped up this section

with my personal assessment and takeaways from my firsthand experience along the course of the Teesta V Project.

The third and final section of Teesta I featured was the stretch of river near Dzongu in North Sikkim, which included and featured the Teesta IV Dam. I once again featured a single stakeholder, Mr. Lepcha, and tried to capture his unique character and story to give a sense of how unique Dzongu and all of the natural lands in Sikkim are while giving the audience a view into the life of someone who has been actively opposing the HEP projects for nearly a decade. I began the section by utilizing a recording of Tenzing singing a song used by ACT to rally others to the anti-dam cause. I coupled this powerful song with more shots of Dzongu and casual shots I had taken of Tenzing as I introduced his character. I felt it important to vary the structure of the three main sections by introducing the characters in different ways—allowing them to introduce themselves, introducing them with titles, and introducing them through narration. This ensured that Taming the Teesta didn't take on a boring, structured feel. In the rest of this section, I used Tenzing's interview and my own narration to tell the story of the work he is doing as well as his feelings for Dzongu and the Teesta IV project. After covering in depth the repercussions of dam development at Teesta V in the previous section, I wanted to capture in this final section the success story of Tenzing's fight against the dams in Dzongu and portray how much beautiful river and land there is still left to preserve.

I used a powerful piano piece as the centerpiece for my conclusion and edited to the music. This, I felt, evoked a powerful emotional response and paired nicely with my final narration in which I summed up my experiences traveling up the Teesta River and discussed the future of HEP development along the river's course. I used a number of

powerful shots, many featuring the people I met and interviewed but didn't include within the documentary, to draw the audience in and, once more, attempt to portray viscerally the human cost of development. Then, as the song built up, I moved into shots of dam development and finally a few shots of Dzongu to contrast with the dam shots and end on an inspiring note. As the music fades, I end the film with a powerful quote from Tenzing where he talks about what it would be like to lose Dzongu and his homeland to a hydroelectric project. In this quote, Tenzing's wonderful personality comes out, and by ending with him I am making a statement about the importance of people and the intangible effects of development.

## Analysis and Evaluation

Going into this project, I had two main goals for my documentary. One, I hoped to portray the holistic effects of dam development from the measurable environmental degradation to the intangible cultural and human cost of hydroelectric projects. Only by looking at the effects of development from each perspective in turn can we truly ascertain the real cost of massive development schemes. Second, I wanted to evoke narrative and, specifically, human narrative, a powerful tool in documentary film that is too often hidden beneath facts, graphs and talking-head interviews with experts. I wanted to get into the field and spend time with the people who have been adversely affected, who are on the front lines of the anti-dam movement, and who have their finger on the pulse of the Teesta River. Overall, I am very pleased with Taming the Teesta's ability to complete these two goals and convey the notion of a river as a holistic body and ecosystem that is diversely affected by development.

I knew going into this project that it would be a tall task to look at the river holistically, as it would mean meeting with a number of different stakeholders, traveling up and down the river constantly, and adjusting to new field environments. One thing I hadn't counted on is how much space within my film introducing each new issue, person, and segment of river would take. However, I was fortunate to have filmed a large amount of b-roll during my production schedule, which meant I had the footage to keep the audience interested while transitioning from location to location and giving the necessary background information. When I began the editing process of Taming the Teesta, I was actually surprised to find that I had too much footage and ended up leaving a few interviews with stakeholders—such as an interesting interview I conducted with a man who spoke about his land and a school that were now ruined and consistently flooded by the Teesta V submergence area—out of the final product while opting to include the most powerful and important stories. My problem while editing was having to leave out points and issues that I felt were very important while realizing the limitations of the time in which I had to edit and further explore each of the issues I discovered while working in the field.

Of course, I spent almost a week of my time bedridden and recovering from illness. This ultimately resulted in my being unable to interview a few of the more senior members of ACT and restricted the amount of time I had to film in the field. However, I was pleased that my project did not ultimately suffer from the time I spent away from my work, owing to the intensity with which I worked when I was in the field and the significant amount of work I did at the beginning of my shooting schedule.

Aesthetically, I was very happy with how my project turned out. Shooting in a studio environment or even in an environment with people you know and a language you speak, it is easier to convey the technical aspects of film production to those with whom you are working. For example, it's easy to talk your interviewee through the fact that they should, if possible, answer in complete sentences to make the footage easier to integrate into the final project, or convey that it would be better to conduct a shoot during the waning hours of the day when the lighting is best in a controlled environment. In a cross-cultural and field-based context, it becomes very tempting to let these filmic rules fly out the window, and for me, it became a balancing act as I decided what technical aspects I would adhere to and push those around me to comply with, and which I would let slide. Ultimately, it was a wonderful challenge trying to integrate aesthetic considerations with such a challenging shooting environment and context, and I was pleased with the final 'look' of the film and they way each piece of audio and video I gathered came together.

Considering the time frame with which I was able to work, and issues such as sickness over which I had little control, there isn't a lot I would change about my process. Working in the field is a constant act of balancing and picking your battles. It's important to push as hard as you can to get the story and create the best product you can with what you have, but at the end of the day, compromises must be made and it's important to realize that there are certain things outside of a filmmaker's control. That being said, if I were to undertake a similar project with a similar timeframe in the future, I would change a few things aesthetically and regarding my interview process.

Aesthetically, I would work a little harder to schedule shoots during the 'golden hours' at the beginning and end of each day when the lighting is best. In my final editing

process, I realized how much more aesthetically pleasing and thus effective at conveying meaning and evoking emotion the shots I gathered in the evening were. One issue I hadn't counted on was the fact that India has one time zone, meaning the sun rose at 4 a.m. each morning. I could hardly ask my subjects, who were already taking time out of their day and making sacrifices to tell me their story and show me around, to get up at 3 a.m. to travel to a shoot. Likewise, I was hard pressed to shoot in the evening when doing so meant we would be, in most cases, getting back well after dark. Therefore, much of my field shooting was conducted during the middle of the day and I had to work hard to conduct interviews in the shade and deal with the harsh lighting. Of course, this is a consistent reality of field shooting, especially on a tight schedule, but I do believe I could have done more shooting during better lighting had I gained more information on the field environment and logistics beforehand and been more communicative about my needs as a filmmaker.

As far as my interview process goes, I would have liked to have more background information on the affected peoples whom I interviewed around the Teesta Stage V project site. My interviews with Tenzing and Shamip were conducted after I had spent a few days getting to know them and conducting casual interviews. Contrarily, the interviews I conducted along the middle stretch of the Teesta during my final field shooting excursion were more rushed and I was certainly less prepared than I had been for my previous interviews. This was due to the fact that I had been sick and needed to cover the area more quickly than I would have otherwise hoped for, as well as the fact that the people I interviewed were busy with their daily activities and were unable to accommodate my following them around and spending time getting to know them more

fully before the interviewing process. Going into the project, I intended to avoid these brief interviews that are too often what make up modern journalism. As previously discussed, I wanted to really get to know those whose stories I was telling in order to gain a holistic and human-centered appreciation for their lived-experience that would be translatable to my film product. Within the context of the field realities that were at play when I conducted these interviews, I feel I could have done a better job of slowing down and gaining background information on the individuals I interviewed. However, I do believe I did a good job of making apparent to the individuals with whom I met that I valued their time and opinions very highly as well as performing 'seat-of-the-pants interviews' in which I conversationally developed my line of inquiry based on what the interviewee was telling me. Finally, one drawback that is often present when interviews are conducted in a short timeframe is the lack of human element, whereby subjects often end up feeling they were not portrayed effectively. I believe, by interacting respectfully and conversationally, and by gathering b-roll of the interviewees around their homes and interacting with others, I was able to portray them as humans with important stories rather than simply as talking heads.

## Conclusion

As this was my first foray into documentary filmmaking, it was a powerful learning experience. I learned a documentary film project can always be better, include more, and tell more stories. I learned how working in a challenging, field-based environment is like a dance and a relentless game of give and take. I learned that it was necessary to pick and choose my battles, and that some challenges I encountered and

problems that arose could be dealt with and were worth working through. Simultaneously, it was vital for me to realize that some things could not be helped, and I learned to mold and adapt everything from my technological workflow to the actual narrative of my creative piece based on the ever-changing realities of the dynamics in which I was working. It would have been easy for me to completely exhaust myself by attempting to apply the notions I had about my project, the story I wanted to tell, and every detail I know about film production as I have practiced it back home to the realities of a completely new environment and dynamic.

I learned not to underestimate the little things. I was surprised by the time it took to transfer and log video files, by the care at which I needed to gather audio and decrease background noise during my interviews, and by the toll a bouncy five-hour bus ride took on my physical wellbeing and mental acuity. I learned not to take things that I consider fundamental to completing a media project, such as electricity and access to the Internet, for granted, but rather as commodities to take advantage of when the opportunity was presented to me. I gained a greater appreciation for the power of human interaction and, when telling human stories, how much easier my job becomes if I spend time getting to know those I am working with on a human level rather than simply a professional level.

A lesson I am continually learning is to not put down the difficulties I am facing by simply telling myself to ignore the emotional toll difficult environments and experiences take on me. For instance, the most challenging period of my production period was, unsurprisingly, the week I spent sick and in bed. As I began to regain my strength, a powerful earthquake hit the Himalayan region, shaking loose the dresser doors of my hotel room and sending me dashing into the street. I then spent four days waiting,

along with friends and family back home, for my good friend, who had been traveling in Nepal, to make contact as more aftershocks rocked the area. Of course, I spent this period extremely worried and became discouraged about and distracted from my project even as I began to recover from my illness. My initial reaction to tough situations like the one in which I found myself has been to bury my feelings of stress and fear and simply push myself harder until I click back into gear. However, in this instance, with so many variables outside of my control, and attempting to deal with them alone in a place foreign to me, I only began feeling better when I appreciated that I was going through a difficult and stressful period and that it was just fine to feel the way I was feeling. Once my friend was able to alert us to his wellbeing, I felt much better, but it was still important in moving forward and finishing my project that I not belittle the struggles I had been through.

I learned that, with a willingness to be flexible, a degree of openness and kindness to those I interact with, a willingness to listen, an appreciation for my own mental and physical wellbeing, and about 300 *Momos*, I can tell any story I want and deal with any challenge that might arise in the process of communicating human narrative in a new and challenging environment.

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Table 1

*Helpful Contacts in the Region*

| | | |
|---|---|---|
| Tenzing Lepcha | ACT Member | 09679183063 |
| Dawa Lepcha | ACT Member | 09434257948 |
| Tseten Lepcha | Acting President, ACT | 09434033777 |
| Soumik Dutta | Journalist, 100 Reporters | 09831809185 |
| Rupesh Sharma | Community Member | 09933714545 |