

Report: Himalayan Study Abroad Program: At the Top of the World

May 24th – June 6th, 2009

A Collaborative Study Abroad Program of the Nepal Study Center (NSC), Department of Economics, University of New Mexico (UNM), and Kathmandu University (KU), Nepal

UNM Faculty: Professor Alok K. Bohara and Professor Jennifer Thacher, Department of Economics, University of New Mexico (UNM)

Students: Jamison Shekter, Kelly Williamson, Patrick Duff, Holly Buehler, and Kelsie Cano Atzberger

Acknowledgement: Center for Regional Studies (UNM), Vice President's Office for Student Affairs (UNM), Jeffrey Drope of Marquette University (Teerlink Family Foundation), and Martin Ravin of Colorado for their financial contributions. The last two private contributions were used for the sustainable development projects in our model villages (e.g., smokeless stoves and briquette making and the rainwater harvesting project in a school, respectively)

We would also like to thank Kathmandu University (KU) and KU School of Management; Department of Economics (UNM), graduate students, and staff; Jawalakhel Rotary Club; Friends of Bagmati (FOB); Nick Simons Institute; Hotel Dwarikas; Patan Business and Professional Women (PBPW, Kiva-Nepal); International Centre for Integrated Mountain Development (ICIMOD); National Trust for Nature Conservation (NTNC); Foundation for Sustainable Technologies (FOST), and our Himalayan Study Abroad coordinator Sushila Adhikari (KU student) for their assistance and help.

Heading off to Nepal

We all headed off to Nepal in May of 2009 to put our economics learning to practical use. The goal of the class was to combine theoretical knowledge and class room learning from UNM with a practical experience.

The general goal of the study abroad program was to expose students to the economics of environmental/natural resource issues and development in Nepal. This year's study-abroad experience focused on water and development issues in the Kathmandu Valley. For most of the students, this is a follow-up class to an introductory environmental/natural resource economics class that they took in Spring of 2009 that focused on similar issues in the Middle Rio Grande. The initiative for the study-abroad experience comes through the Nepal Study Center, housed in the Department of Economics, whose research is focused on environmental and development issues in Nepal.



Much of the study of our trip focused on the Bagmati River. The Bagmati River flows through the Kathmandu Valley. The river is considered holy by both Buddhists and Hindus, and there are a number of important Hindu temples along the river. The Bagmati River suffers from severe pollution. This pollution comes from both industrial sources and households. One reason for the household pollution is that Kathmandu has seen high levels of unplanned growth, without a corresponding growth in infrastructure. While there are a number of wastewater treatment plants, only one is functional. In addition, there are increasing numbers of squatter villages along the river, with no access to sewers. Thus, the Bagmati, which is a source of water supply for the city as well as well as a traditional place

for conducting Hindu rites involving water immersion, is increasingly filled with raw sewage.

Main Programmatic Activities

The program had five basic elements: 1) academic lectures at Kathmandu University by experts and faculty (environment, water quality, eco-system, health, clean-up action plans, development, culture, history and politics), 2) field trips along the various phases of Bagmati river basin --upper, middle, and lower, 3) cultural exposure (world heritage sites and traditional village tours), 4) engagement in hands-on sustainable development projects --rain water harvesting (with Jawalkhel Rotary Club), smokeless stove (with FOST), and tele-microfinance (with Kiva-Nepal), and 5) UNM students' interaction with KU students and other grass-roots organizations (e.g., FOB). At the end of the trip, students were required to submit a journal and a research paper.

Academic Lectures

Overall Introduction: The program began with a welcome note from the Dean of Kathmandu University School of Management (KUSOM), Professor Subas KC. Dr. Mahesh Banskota, Dean of Arts, Kathmandu University, organized the first lecture series on the topics of economic development, politics, and history of Nepal. This overall introduction was very useful for our students to learn about Nepal. This helped set the tone for our students. Two graduate students from Dr. Banskota program helped with the presentation.



Environment, Conservation, and Biology of Bagmati River: Dr. Sanjaya Khanal and Dr. Atindra Sapkota of the KU's Environmental Sciences Department gave a presentation on the status of Bagmati River in the context of the overall ecosystem. Special attention was given to the scientific findings of various studies done on the water quality at three different phases of the river – upper, middle and lower. Students also learned about the science behind the water quality testing.



Mythology and Culture of Bagmati and Various Action Plans to Clean it: Dr. Siddhartha Bajracharya of the National Trust for Nature Conservation (NTNC) assembled a pool of experts at National Zoo for this leg of presentation. There were five experts who gave lectures on various aspects of the Bagmati problem (Bhushan Raj Shrestha --Environmental Information Systems; Bipin Chitrakar --Urban Planner; Prakash Damal --Joint Secretary, Ministry of Culture; Suresh D. Shrestha --Associate Professor, Tribhuvan University; Ngamendra Dahal --NTNC). This lecture series was very informative for learning about various action plans being undertaken to manage and clean the river. A vast amount of scientific data was presented during the presentation including an impressive display of GIS resources.



Environment and Health: There were two lecture series on this topic. The first one was given by the Chair of the KU's Environment Sciences department, Professor Sanjaya Khanal. This



lecture was conducted at KU's main campus in Dhulikhel, a pristine town situated about 23 KM east of Kathmandu valley. The focus was on the various aspects of the water quality and testing mechanism. The second lecture was given by the deputy director of Nick Simons Institute, Dr. Bruce Hayes, on the manpower training effort of the Institute in the context of national health policy.

Field Trips: Upper, Middle and Lower Bagmati River Basin

Our study of the Bagmati involves three hikes and collection of water samples along three area of the Bagmati: the pristine Upper Bagmati, the heavily polluted Middle Bagmati, and the lower Bagmati, downstream of Kathmandu.

Upper Bagmati: Sundarijal Town and Shivapuri national Forest Hike



Our main focus was to compare and contrast the three phases of the river basin – upper, middle, and the lower Bagmati. The upper river basin originates from the national park Shivapuri which is on the north side of the valley

in and around the town of Sundarijal (about 10 KM away from the city). We hiked the national forest for about four hours with a purpose to reach a wetland type lake called *Dhap*. But because of the time pressure we had to return without reaching the spot. Along the way we collected various water samples. We also noticed that the water quality became much better as we hiked along the upper Bagmati River stretch. Oh yes, We had our lunch at a resort type restaurant overlooking the beautiful valley. The village life along the trail was amazingly serene, but poverty level was glaringly visible. We also took several water samples.



Middle Bagmati: A Sad Affair

Urban sprawl, Pashupati temple, and water treatment plant



Bagmati is a holy river for the Hindus and Buddhists alike. One major holy temple complex, Pashupati Nath, is situated next to the river. The river next to the temple is used for cremation and spiritual bath. But the urbanization and unplanned over-growth of

the city has claimed the life of this holy river. We found it to be in a sad state littered with trash; and the flow of water was clogged with refuse from the city sewerage system. We went to a nearby water treatment plant under a



guided tour. It was partially functional, treating only 70% of wastewater during peak seasons, and as low as 30% during summer. It was particularly illuminating to compare this wastewater treatment site with Albuquerque's. We also collected some water from the river for comparison.

Lower Bagmati: Chobhar Gorge, Sculpture Garden



Meandering through the city, the holy river exits the valley



through the Chobhar gorge. The quality of water was not any better in this section of the river. The temple at the exit point was breathtakingly beautiful, and our brave Kelly collected the water sample from the river. We were accompanied by a coordinator of the Friends of Bagmati



organization (Mr. Shishir Adhikari and his university colleague). We were provided with valuable information about the river. Our morning trip ended with a walk around a beautiful urban wetland –Taudaha, and we ate lunch at a restaurant on the hilltop in the sculpture garden. The top had an amazing view of the valley. We also enjoyed visiting a beautiful Buddhist monastery that was just next to the restaurant.



We also interacted with the Friends of Bagmati (FOB), a grass-roots organization, to learn about their awareness campaign. We also learned that there are numerous such active grass-roots organizations with similar concerns about protecting the cultural aspects of the river. The good news is that the FOB is keenly interested in implementing the Bosque Ecological Monitoring Program (BEMP), a collaborative project of the University of New Mexico and Bosque School of Albuquerque, on the Bagmati River in collaboration with the Kathmandu University and some private schools. Dr. Bohara was invited back to present the BEMP concept to various stakeholders affiliated with the Bagmati River.

Cultural Exposure

Kathmandu valley has three ancient kingdoms ruled by the Malla clans three to six hundred years ago. Its history however is much older than that. The uniqueness about the valley is that the two of the ancient religions – Hinduism and Buddhism— are totally intermingled. The valley is known for hundreds of shrines and temples.

Three Ancient Kingdoms: All palace complexes are known as Durbars. The oldest of three kingdoms is Bhaktapur Durbar. Two important features of the Bhaktapur Square are the 55-window palace and a five-story Taleju Temple. We also visited several ancient water spouts. It was interesting to see how water spouts remain a important gathering place in the city, where many families continuing to gather their household water.



The second ancient kingdom is Patan Durbar. This square has a beautiful museum, which houses many valuable artifacts from the palace.



The third square (plaza) is called Basantpur Durbar Square. This is where they also house the living goddess Kumari.



Our walk through the city also produced many surprises. We were especially awed by the sheer number of shrines and small temples in every corner of the narrow streets. We also began to learn to walk on the street by going around these shrines from the right side. The highlight of the cultural visit was the three amazing world heritage sites, two Buddhist and one Hindu: Swyambhunath, Bouddhanath, and Pashunath Temple. Some of these Buddhist complexes also had Hindu deities. The religious harmony between these two cultures was an eye opener for us.



Our other side adventures included walking though the Thamel area with hundreds of gift shops and restaurants. We also went to see Dream Garden and a private library of a Rana Prince. His private collection included about 58,000 books. This hundred years old palace is now a public library.



Sustainable Project Outings: rain water harvesting, smokeless stoves, and tele-microfinance (Kiva-Nepal)

As a part of the study abroad program, Nepal Study Center raised some money from its private donors (Dr, Jeffrey Drope and Martin Ravin) to implement some sustainable projects in nearby villages. We made contacts with three local partners: Jawalakhel Rotary Club for rain water harvesting in a school at dalchoki village (Ms. Greta Rana); Foundation for Sustainable Technology (FOST) for smokeless stove project in Balambu village (Mr. Sanu Kaji Shrestha); and Patan Business and Professional

Women (PBPW) for tele-microfinance –Kiva-Nepal (Ms. Urmila Shrestha) in Thecho village.



Our first sustainable project field trip was in the village of Dalchoki, where we worked with the Jawalakhel Rotary Club to implement a rain harvesting project for a school.



Water scarcity is a significant issue in Dalchoki. As reported to us by our rotary contact, Ms. Greta Rana, some of the households have to walk to 45 minutes each way to collect water. Those engaged



in the primary agricultural activity, raising buffalo for milk, have to make several trips per day to collect enough water for their livestock. Households here receive less than the WHO recommended quota of 35 liters per day. The lack of water impacts the schools: children are allowed one drink of water per day and there are no toilet facilities. During our visit, we learned more about these issues. Our program donated two tanks (5000 litres and 2000 litres) and the necessary pipes. Technical assistance was provided by the ICIMOD (International Center for Integrated Mountain Development). The school children, the teachers, and the villagers greeted us warmly. Much of the installation was already completed, but our students helped put up the finishing touch on the project.



Another significant issue in Nepal is the decrease in availability of wood-fuel. Other fuel sources such as propane are quite expensive and not affordable for many Nepalese. In addition, cooking inside with wood leads to poor air quality within the house, significantly impacting the health of women and children. Smokeless-briquette stoves are one potential solution to this issue. The briquettes are made with waste materials. In our study of this issue, we worked with FOST, a non-profit organization that



builds the stoves and trains villagers in how to create the briquettes. You can watch a video on the NSC's Study Abroad site to learn more about the stoves and FOST's work. We spent a day learning about the process at FOST's workshop near Thamel area. To learn more about how the stoves are being put to use, we visited the village of Balumbu, where we donated smokeless-briquette stoves and training. We were welcomed by a group of village women group known as the Seven Sisters. Their hospitality was very heart warming. They fed us their traditional food and even dressed one of our students (Kelly) in their traditional attire.



Our final sustainable project related outing was with KIVA Nepal. [KIVA](#) is an example of a micro-credit program, which makes small loans to individuals who are not able to obtain traditional loans because they do not have a credit or employment history. KIVA is unique in that it operates through the web, allowing you or I to make small loans via our credit card to specific entrepreneurs in other countries.

We learned about the specifics of KIVA Nepal's microfinance program as well as met some of the women entrepreneurs in the village of Thecho who have received these loans. Ms. Urmila Shrestha, the President of Kiva-Nepal, gave us



a tour of the village. Of the 500 women under the Kiva-Nepal program, the Thecho village had 205 women entrepreneurs. The UNM team also took a gift (digital camera) for Kiva-Nepal organization from Albuquerque on behalf of a young couple (Ananda and Snigdha Regmi). This Kiva program was introduced to Nepal as a result of NSC's networking effort. In particular, NSC acknowledges some financial help from a US-based Nepali organization ANMA (Association of Nepalese in Midwest America).

Putting it Together: Interaction with the Kathmandu University Students

The final day of the trip was spent at KUSOM summarizing and discussing the various aspects of the program. Students were asked to highlight the ups and downs of the program. In fourteen days, we had accomplished much with a hectic schedule. Surprisingly, students did not want to drop any of the program events. We discussed the class requirement and the writing assignments. They were instructed to complete two assignments: a two-page summary of their journal entries and a research paper, focusing on similarities and differences between the environmental/development issues facing Nepal and New Mexico.

Following our group discussion, UNM students and the KU students spent two hours interacting with each other. They discussed various issues and even played a game or two.



The final event was a gathering at the Jawalkhel Rotary Club followed by a dinner invitation at Ms. Greta Rana's house. UNM students were given access to swimming pool and some badminton time at their hotel. Both Jennifer and Alok were honored to receive a Rotary plaque for our contribution to their model village project at Dalchoki. In return, we promised to return next year with another sustainable project for that village.



Looking Ahead: international experience in community health management

Dr. Bohara was invited to visit the Kathmandu University teaching hospital at Dhulikhel to explore, among other things, the possibility of expanding the Study Abroad Program to include some components in community health management for the UNM's pre-med students. A two-day visit organized by the Dhulikhel Hospital's director Dr. Ram Kantha and his colleagues, Dr. Rajendra Koju and Dr. Biraj Karmacharya, was extremely educational. The first day was spent touring the hospital and its various programs and wards. As a courtesy to this hospital, the town of Dhulikhel will soon have a drinkable tap water, perhaps the first town in Nepal to have such a facility. This is just one of many marvelous examples that this hospital is experimenting.



There are no special VIP wards for the rich; the rich and the poor pay a token fee and share the same general wards and services. Humbled by the experience, the rich and the famous provide the hospital with several years' worth of food supplies and other necessities. International medical interns have been attracted to the ideals of this hospital. Dr. Bohara calls this hospital a hermitage run by a hermit, Dr. Kantha.

Oh yea, Dr. Kantha has introduced token money to replace the paper money to reduce transmittable

diseases. The whole sprawling complex is user friendly for wheelchairs. The KU medical students and visiting interns provide community health services to remote village posts as a part of their regular community health service outings. Currently they have 12 such posts.



The second day was dedicated in visiting a remote health outpost in a picturesque village Bahunpati (1.5 hours drive on a dirt road). Dr. Karmacharya and a student intern took Dr. Bohara for this outing. This health post tucked away next to a beautiful river (Indrawati) is one of 12 such posts. KU medical

interns visit this place regularly to provide health services for the community. Dr. Bohara and Dr. Karmacharya discussed the possibility of developing a joint course, Community Health Management. As a part of the Himalayan Study Abroad Program, the UNM premed students (or perhaps others) could do an additional one to two weeks in Kathmandu, learning and experiencing the community health care management practicum at some of these beautiful remote villages.



For more information about the activities of the Nepal Study Center and the Study Abroad Program and the photos, go to <http://www.nepalstudycenter.unm.edu>

“I also wanted to thank you both, because this trip was really meaningful for me. Also, if next year you are looking for a TA, keep me in mind.” -Holly

“Thank you so much for such an amazing trip! I really enjoyed it! Thanks again for everything!” -Kelly

“And thank you for taking me on this trip, I feel completely honored.” -Kelsie

