Letter from the Editor

As we present to you our third issue of Komaza, an increasing number of fellow students and staff from all over campus are approaching us about their international development projects, which makes us more excited to learn and write about as many of them as possible!

Two components that we try to keep in mind when featuring international development projects are: involvement with community partners and sustainability. International development is only useful when it serves the distinct needs that different communities actually have, which is truly learned by direct interactions and communication with them. It is equally important that the solutions to their needs will be long-standing and maintainable by the people of the community, since they will be the ones to use the new technologies.

We also hope to incorporate sustainability and involvement with our community into our own project: Komaza. Through our survey last semester, we received some great feedback on how to make this magazine better. One suggestion was to feature more projects. In response, we’re working towards publishing more than one issue next fall semester, and making each one longer. Another suggestion was to better explain to readers how to get involved in the projects they read about. We’re currently working hard on revamping the website to include a variety of features for direct and immediate access to resources and information. Feel free to send us more questions, comments, and ideas: Komaza-official@mit.edu, or fill out our survey: http://www.surveymonkey.com/s/GYZNHPS. We love hearing from you.

In the meantime, read the magazine you hold in your hands – and be encouraged, entertained, and inspired!

Sincerely,

Bina
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Riddle me this: what’s bite-sized, dry on the outside, wet on the inside, tastes like a little piece of heaven, but only costs $1?

Answer: xiao long bao, also known as soup dumplings.

Singaporeans are said to have two national pastimes – shopping and eating. There are certainly abundant opportunities to engage in both on this tiny island nation, but for me the food attractions far outweigh the lure of luxury items on Orchard Road. Whatever your gastronomic preference, you can be sure to find it somewhere in Singapore, and in the past I’ve thoroughly enjoyed everything from laksa to bratwurst.

But despite having traveled to Singapore a number of times, I was unaware until recently of the delights that await me in a little bamboo steamer. Xiao long bao are a type of steamed bun that originate from Nanxiang, a suburb of Shanghai. The skin is made with unleavened flour, so it’s smooth and a little translucent when steamed rather than white and fluffy. Traditionally xiao long bao are filled with pork, but variations include chicken, seafood and vegetarian mixtures.

The key ingredient to xiao long bao is aspic – a solid jelly usually made with meat stock and gelatin. The gelatin is wrapped around the filling inside the skin in a thin layer. When the bun is steamed, the gelatin melts and creates a little mouthful of soup.

Traditionally, xiao long bao are eaten as a dim sum item. They come served hot in the bamboo basket in which they were steamed, sometimes on a bed of cabbage, and can be dipped into a mixture of black rice vinegar and fresh ginger before being eaten.

Xiao long bao are also now becoming popular as a main dish on their own, which is how I first enjoyed them. A friend, who is more familiar than me with the spectrum of steamed buns, suggested we head out for some xiao long bao one evening. The waitress looked askance at us when our order consisted entirely of xiao long bao and noodle soup, but I was too excited to care.

Those little buns didn’t let me down. At first my tongue was burned by the hot liquid, and I didn’t know to hold a spoon underneath so consequently lost most of the soup from my first bun down the front of my clothes. By my second bun, I was a pro. The pork filling on its own was nothing to write home about, but it took on an extra dimension when combined with the fragrant soup.

One of the great pleasures of international travel is being able to sample local cuisine and expose one’s taste buds to new delights. I travel frequently to Singapore for work and always eagerly anticipate how much delicious food I can fit in to each stay (needless to say, it is a blessing that the hot weather favors loose clothing). After having thoroughly enjoyed my first xiao long bao experience, those little parcels of heaven are now permanently added to my must-eat list.
La Vaquita

by SAM FOX

During IAP 2010, Sam Fox '10 and two other undergraduate MIT students traveled to La Vaquita, a rural, resource-deficient village in Zacatecas, Mexico, as part of the MIT Public Service Center and Global Poverty Initiative’s Poverty Action Program. The team’s focus was to identify the major problems faced by community members and how MIT’s students and resources would be able to help. Data collection centered on interviews with villagers and observations of day-to-day activities and by the end of the month, Sam gained a better understanding of the challenges that the community faced and how to initiate an international development project.

January 25, 2010

I woke up this morning and could not convince myself to get out of bed. It wasn’t that I was lazy or didn’t want to get to work. It is FREEZING. It even snowed earlier on our trip, apparently the first snow here in ten years!

Yesterday was our team’s final meeting with the villagers. Unlike the first couple of meetings, there were a lot more people participating in the conversation. We split them up into three groups to really focus on the major problems in the community: health, education, and finances. I was in charge of the education group, and the women came up with a lot of great suggestions! One involved the creation of a weekend class program taught by some of university students from La Vaquita when they come back to the village—we discussed the possibility of teaching computer use to the students in the secondary school. The other groups talked about increasing agricultural output through use of fertilizers, creating small businesses to increase the income of the villagers, and how to exert greater control over personal health. We definitely focused our efforts on trying to empower the villagers to create, and follow through with, their own solutions.

After the meeting, we went back to our host family’s home for a lunch of beans, rice, and tortillas, and even though we’ve been eating at least one meal like this everyday, the food tastes great and I haven’t gotten sick of it yet! We spent the afternoon teaching some of the children in the village how to use computers, and then we worked with the villagers and Javier, the government health educator, to build an “ecological stove.” These stoves are constructed to direct all smoke created from cooking fires out of the house, as indoor air quality can be a huge health hazard for many people in the region. Our hope is that now that members of the community have seen the process, they will follow suit and build one in their own homes.

Tomorrow is our last full day in La Vaquita, and the women have planned a picnic for us out in the fields. I believe there was some talk of horse/donkey riding as well. I’ve really enjoyed my time in La Vaquita. The first couple of weeks were a little uneasy, with the language barrier and different lifestyle, but as the villagers started to open up, I felt less and less like an outsider. I really hope I’m able to come back someday!
D-Lab Zambia

The D-Lab Zambia team created a new method to make charcoal and held nutrition seminars that taught attendees how to make milk from moringa trees. The team then traveled to Mumbwa and worked with the town council to give a biogas digester informational tutorial at schools. Lastly, the team traveled to Lusaka to work with the Peace Corps to demonstrate new simple and inexpensive technologies like a peanut sheller, corn sheller, and charcoal making. Through joint brainstorming and envisioning exercises, Peace Corp volunteers and the team shared their visions for the city.

Demonstration of how to make charcoal from agricultural waste.
D-Lab India: Ranikhet

The D-Lab India: Ranikhet team traveled to the northern Indian state of Uttarakhand. They worked with two NGOs: Avani in the Kumaon region and Grassroots in the city of Ranikhet. With Avani, the team worked on building a solar dehydrator to efficiently dry out dyes for fabrics, building a more efficient stove, inventorying Avani’s solar lamp business, checking water quality, teaching how to test water, and providing hands-on science lessons to children in the community. With Grassroots, team members worked on a new walnut cracker design, built an efficient stove made of locally available parts, and taught a basic first aid class to local women.

Community collaborators testing the spring water in NorMgo Village, Qinghai, PRC, using inexpensive on-site water testing equipment.

D-Lab India: Calcutta

The D-Lab India: Calcutta team traveled to Eastern India. They first traveled to New Delhi, where the team met with the Ministry of Science and Technology about a project called the Soleckshaw, a solar-powered cycle rickshaw. The team spent the majority their time in Calcutta preparing for a new D-Lab urban initiative. They worked on projects ranging from water testing of the local water supply, using packing material for making charcoal, setting up educational workshops that teach local youth how to make flashlights and saltwater batteries, demonstrating drip irrigation kits to organic farmers, and working on a bicycle-powered cell phone charger, looking into available parts and manufacturing techniques at an electronics market, and improving the design of cycle rickshaws.

The team examines the rickshaw structure to better understand the design in order to disassemble and bring a rickshaw back to MIT.

D-Lab China

The D-Lab China team visited two nomadic Tibetan villages in the western China’s Qinghai Province. In the two villages, the team collected data on indoor air pollution and water quality and conducted surveys on the perception of indoor air pollution. The team also taught Tibetan elementary and middle school students English, sanitation, and design classes, at the request of a community partner.

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Making Money From Waste

by REBECCA GIANOTTI

More than 40% of the world’s population – about 2.6 billion people – do not have access to basic sanitation.

According to the World Health Organization and UNICEF, if current trends continue, the Millennium Development Goal’s sanitation target will be missed by more than half a billion people in 2015. To help tackle this problem, MIT-Sloan graduate students Jeff Zira, Ani Vallabhaneni and David Auerbach are working on a solution that combines proven technology with an innovative business model.

Their team, Sanergy, won a Legatum Center IAP 2010 seed grant for a proposal that uses local entrepreneurs to create access to sanitation while generating income. Their model has three components: 1) establish a network of franchised sanitation centers containing toilet and washing stations; 2) have entrepreneurs transport the waste to a central processing facility; and 3) process the waste into biomethane and organic fertilizer. The biomethane will then be converted into electricity, which can be sold back to the main grid, while the fertilizer can be sold to commercial farms.

Although the technology that Sanergy proposes is widely used, their model is unique in its market-based approach, which provides opportunities for individual owners of the centers to earn a living while providing a vital service. “No one listens to you when you talk about sanitation, but they will when you talk about job creation and energy,” says Vallabhaneni.

“No one listens to you when you talk about sanitation, but they will when you talk about job creation and energy”

Jobs are scarce in the urban slums of Kenya, where Sanergy is focusing its attention. Over IAP 2010, the Sanergy team conducted a feasibility study in the Nairobi slums and visited Kibera, the second largest slum in Africa with a population that fluctuates seasonally between 600,000 and 1.5 million inhabitants. Official statistics vary, but the Sanergy team estimates that only about 20% of Kenya’s estimated 10 million slum residents have access to sanitation.

“One of the reasons for slow progress in sanitation is a lack of trying different market solutions,” explains Vallabhaneni. “Sanitation is so dependent on donor and government funding that infrastructure is built when funding is available, but when funding shifts focus, things fall into disrepair.”

Sanergy believes their model will succeed because each franchised sanitation center is designed to only cost as much as an individual entrepreneur can borrow from a microfinance bank. Costs can be recouped through user fees, membership plans and sales of complementary services to center users. While it may sound unconventional to have users pay for sanitation services, the demand for adequate sanitation is so high that the pay-per-use model has already been proven by other organizations working in Nairobi slums.

The Sanergy team is currently working on a prototype sanitation facility and aiming to test out the prototype in Kenya this summer. If all goes well, the team expects to spend the next year working out any kinks before deploying the central processing facility and scaling up the individual sanitation centers during summer 2011. Over 5 years, Sanergy aims to build a network of 5000 centers, providing sanitation for around 1 million people and directly creating around 12,000 jobs. With a bit of luck, the Sanergy team’s model will turn the problem of waste into a profitable way to improve living conditions for some of Kenya’s most impoverished communities.

For more information, contact aniv@mit.edu or visit kenyasanergy.blogspot.com

Walking through Kibera settlement, Nairobi, where there is a dire need for adequate waste disposal.
It may be surprising to learn that the leading cause of death and disability for children and adolescents in developing countries is neither malaria nor diarrheal disease, but rather road traffic injuries, which is what Francesco Baldisserri (Sloan G ’11) discovered when he joined the Sloan Entrepreneurs in International Development (SEID) group at MIT.

SEID, a student-run organization that fosters collaborations between Sloan students and organizations or companies with social missions, paired Francesco with Amend, a World Health Organization-backed non-profit that works to address childhood traffic injury in developing countries. Amend focuses on road safety education and research in both Ghana and Tanzania to increase awareness about this “invisible, neglected public health epidemic.”

Amend focuses on road safety education and research in both Ghana and Tanzania to increase awareness about this “invisible, neglected public health epidemic.” Overall, economic growth has increased the number of cars on the road in developing countries, but building the appropriate infrastructural support and safety measures have lagged. Road safety is a complicated issue exacerbated by poor road conditions and lack of vehicular safety standards, and children are especially vulnerable due to few transportation options for travel to and from school in the dark.

Amend’s response was to launch the “Be Seen, Be Safe” program to positively influence child road-use behavior. This program includes giving educational workshops at the primary school level, distributing educational materials to classrooms and homes, and supplying children with reflective material, such as wristbands. Francesco notes that, “Amend’s effort in reducing road-traffic injuries among children is remarkable.” Through research and evaluation, Amend determined that the incorporation of reflective material into commonly used items would increase the likelihood of usage by children. The organization began working with designers at the Pratt Institute in New York to strategically incorporate reflectors into backpacks.

Francesco worked with fellow students Jamay Liu, Sloan G ’11, Jennifer Johns, Sloan G ’11, and Jeff Zira, Sloan G ’11 over the course of the Fall 2009 semester to research and define marketing strategies for these backpacks. Initial data suggests that traffic-related injuries have decreased since implementation, so the Sloan group focused on addressing reasonable, sustainable pricing schemes and distribution models to further increase access to these backpacks.

Specifically, Francesco was tasked with piloting the developed strategies using the preliminary stock of approximately 500 backpacks. As an MIT Public Service Center Grantee, he traveled to Ghana this past January, where he conducted field interviews based in Accra, Ghana’s economic center and prime location to reach out to retailers who sell products throughout the country and gain a better understanding of how distribution could be achieved.

“In the mornings, I traveled to Makola Market to get an idea of what the wholesalers’ viewpoints on the bag were, and their perceptions on pricing and the added value for security, while in the afternoon, I visited primary schools to discuss with headmasters the steps that would be involved in distributing bags through schools,” said Francesco. With remote backing from his teammates, a final plan was developed for full-scale distribution by September, the beginning of the peak season for backpack sales.

After the initial fieldwork in Ghana, the next steps in the backpack distribution analysis project involve negotiating lower manufacturing costs – the current price of approximately $3 to $4 is relatively expensive – and completing school pilot programs. Francesco continues to work with Amend, and he encourages students to seek out non-profit projects with interesting challenges that can positively impact communities in developing countries.
Quenching the Thirst for Clean Water

by EMILY SUTER

Globally, millions lack reliable access to clean water, and for the residents of Ddegeya, a small town in rural Uganda, the situation is no different. Despite having knowledge of water-borne pathogens and bacteria, the people of Ddegeya do not always have the resources or time for the lengthy and complicated processes now in place for supplying clean water.

Villagers often take their water straight from an open pond due to long queues at the existing boreholes, and while some townspeople claim to boil their water, many skip this precaution due to a shortage of fuel. Due to the inconvenience of the existing methods, the people of Ddegeya constantly place themselves at the risk of water-borne illness. This past IAP, MIT’s Engineers Without Borders set out to see how they could help.

Originally founded at University of Colorado, Engineers Without Borders is an NGO that pairs students and professional engineers with communities in developing countries. The organization focuses on co-capacity building projects, emphasizing partnership with the community to plan and implement projects.

“As a student organization, EWB offers a lot more continuity than a class can,” says member David Whittleston on the chapter’s commitment to improving the community. Since they have worked with the people of Ddegeya for almost two years, the group has been able to foster a close relationship and strong attachment to people there. “It’s up to us to make the contacts and take the initiative, so we become a much more independent type of development organization,” explains another member Kevin Kung.

For three weeks over January, Kevin and David traveled to Uganda to assess community needs and begin trials of various water treatment methods. The trip was broken into three main parts, the first of which was spent interviewing villagers. By talking to local people, the duo hoped to gain a better idea of why current methods were ineffective and what feasible options could be. The 1,000 residents of Ddegeya are fairly spread out, which makes it hard to create a cohesive water delivery system and to ensure that it reaches all residents. This, as well as other concerns, led to the conclusion that smaller scale purification methods might be more effective than one designed for the entire town.

The second portion of the trip involved hosting workshops for certain households in the community. In addition to discussing the reasons behind water treatment, Kevin and David explained how to use and make a sand filter purification device, a system that runs water through fine sand to trap particulate matter, as well as solar disinfection and solar cooker pasteurization techniques. Though some of the students in the town had discussed these technologies in school, most townspeople had never heard or seen of them before and expressed much interest in seeing more.

Finally, the pair focused on alternative solutions by investigating potential to increase groundwater access. They examined and maintained boreholes as well as evaluated costs and availability of local materials. Kevin and David built two sand filters which are currently being used in homes. By selecting motivated households that were closely tied
to EWB’s main Ddegeya contacts, they hope to track the use and efficacy of the sand filters to make appropriate changes before building more in the community.

Though the trip was an overall success, the team certainly had their difficulties, including the discovery of rocks in the sand they’d ordered, which they then had to spend hours removing by hand. “We started with an ambitious goal, and it was hard because we had to scale back this goal, but it has definitely given us a direction in which to go,” says David optimistically. “We got a strong core understanding, and that is very important.”

If there is one thing the team has learned, it is the importance of experience in the field and the importance of collaboration with the local people. “After a semester, you think you have a good grasp on the project,” David begins... “But then you get there and just find out that things are completely different than you thought before,” adds Kevin.

So where does the project go from here? EWB plans to send six more students over the summer to implement various technologies for filtration, depending on the success of the sand filter trials and on research into potentially making ceramic filters at a brick factory in Ddegeya. Additionally, they plan to install two more boreholes to improve access to residents that currently need to travel long distances for clean water.

As for the duo, they speak excitedly about the chance of returning to Ddegeya. “Though it was mostly an assessment trip, it was quite frustrating not leaving anything there, so it would be very satisfying to go back and help more,” says David. Kevin eagerly agrees.

Photo left page: During a community workshop, Kevin explains the concept of slow sand water filtration using a plastic bottle as a toy model.

Photo top: David and Kevin perform water quality tests on the different sources around Ddegeya on Petrifilms.

Photo bottom: David and Michael investigate a non-functioning borehole while the local children watch.
How can young people in the developing world become technologically innovative entrepreneurs?

Members of Africa Information Technology Initiative believe that many top African students have the potential to create new businesses from new technologies. To transform, students need the right encouragement, attitudes, skills, social networks, and environment. Zawadi Lemayian, AITI’s Communications chair and a native Kenyan, comments that African students have “unexploited potential, as long as you can bring that out.”

Since 2000, AITI has sent nearly 100 MIT instructors to teach over 1,200 African students through 30 programs in four African countries. AITI’s main activity, a summer course organized with partner African universities and led by MIT students, takes advantage of mobile phones’ growing African consumer base. In the past five years, African subscribers increased at an annual rate of 65 percent – twice the global average. “The cell phone is freedom for people who never had access to communication and computing devices,” explains Michael Gordon, AITI’s current president. “It’s a transformational device.”

In response to the growing popularity of mobile phones, AITI teaches students how to develop cell phone applications in Java and how to create sustainable enterprises with them. The course’s capstone is a business plan competition that awards prize money to winning start-ups. Students are also awarded with a credible AITI certificate that helps students get jobs.

Although AITI has only held one summer course with the new curriculum, it has already made a tangible impact. Its 2009 business plan competition funded three start-ups that have created jobs and generated income, and Kenyan universities have already begun teaching extensions courses that use AITI curriculum.

Course attendees are highly selective, singled out by professors because of their self-motivation, eagerness to learn, and intellectual capability. Mostly self-taught because of the lack of quality higher education, these students, Gordon believes, would readily feel at home at MIT. However, they typically become corporate employees, not entrepreneurs.

Gordon explains that much of this is cultural. “African students are risk averse, which is so different from America, where failure is often regarded as a learning experience.” Zachary Stauber, AITI’s Vice President, adds, “They think, if you can get a decent job, why not do it?” He says that even when students point out inefficiencies at their workplaces, their managers will ask, “Why change it? Especially if it’s already making a lot of money.”

Members of AITI believe that one way to redirect African students toward entrepreneurialism is through highly interactive teaching styles. Classroom dynamics are shaped to spur individual thinking, which is a relatively radical concept in a traditionally hierarchical educational system where students take a more passive role in learning. When coming up with a service, instructors challenge students to answer, “What is something you think you would use, your friend would use, your mother would use, that could help them in some way?” In AITI classrooms, instructors dialogue with their students as colleagues who share a common goal.

During the course, students work in teams to experience group dynamics and working with different types of thinkers. For example, one student might have better programming skills, but another might...
have a knack for business. AITI wants their students to develop both skill sets, but of course strengths and weaknesses are the reality.

AITI instructors have witnessed African students’ passion and excitement when they discover that their applied know-how can make money and help people. “They have knowledge, but they didn’t know they had it or that they could do good with it,” describes Lemayian.

Involvement from companies such as Google highlights that AITI’s program provides tangible outcomes and opportunities. “It’s not amateur hour,” says Gordon. “This is real.”

Members of AITI also believe that access to startup capital will also nudge African students toward entrepreneurialism. The course’s business competition was established to address this problem. Gordon describes that when students know that money is available, a substantial obstacle is removed, and students realize that their ideas can become real enterprises. “[They] begin to think, ‘Oh, if I have an idea, I can get money for it.”

Lack of access to networks is another obstacle to creating an entrepreneurial environment. African universities do not provide much legal help or mentorship. To meet this need, AITI connects students to successful local entrepreneurs, who sometimes serve as mentors. Mentors can offer technical assistance or help get a student’s foot in the door.

Potential contacts for students include AITI’s growing professional network of venture capitalists, business people, mobile companies, and government officials. In 2008 Google approached AITI as experts in African technological entrepreneurship, providing them with contacts, money, and equipment. Because it was impressed by the success of last summer’s course, Google plans to escalate its involvement and support. Executives from Google, Nokia, and Safaricom, which is considered the AT&T of Kenya, were even judges of the 2009 business plan competition.

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Although the deadline for teaching with AITI has passed, board members urge MIT students to consider instructing next year. Interested students should have good communication skills and programming or entrepreneurship experience.

Stauber was moved by how his skills could be used to make concrete differences. “In a UROP, I will maybe publish a paper, but I don’t see how my results influence people. [With AITI], you can see the impact. It’s a cool feeling to see that my engineering skills can be applied to real life applications.”

For more information, visit aiti.mit.edu.
The Linda compound, a community in Lusaka, Zambia, is composed of approximately 25,000 people who face numerous challenges that include alcoholism, a high HIV/AIDS rate, and a poverty level at which most people survive on one meal and make under $2 per day. “Whenever we returned to the Lusaka mall for dinner, it would be a huge culture shock in terms of realizing the poverty that we were living in,” says Dan Jimenez ’10.

However, this realization has inspired both Daniel and Tiffany Yuh ’10 in that they were able to observe grassroots, community-based programs function at a high-impact level despite the challenges of limited resources. This past IAP, Tiffany and Dan traveled to Zambia as part of the D-lab team to establish the basis for a long-term project with Light of Hope (LoH), a non-profit that was founded by a local carpenter who saw great need within the Linda compound community. Tiffany drew experience from her previous trips to Zambia via D-lab and the Public Service Center, during which she gradually become more involved with LoH. “I really enjoyed the relational aspect of this work…I got to know the people in the community really well, and when I saw the daily challenges that these people faced, I was motivated to return with ideas for a sustainable project,” says Tiffany.

The LoH organization runs a number of important programs with a core staff of only ten people and focuses on community health issues that include water sanitation, infant/child malnutrition, HIV/AIDS/ tuberculosis drug adherence education, and home-based medical care. Another important component are the after-school youth activities run by LoH volunteers, such as a soccer team, as a response to the lack of alternative, healthy activities for youth in the Linda compound area.

Both Tiffany and Dan recognized that LoH would benefit from developing an income generating project whose profits could support LoH’s public health work. They began exploring an environmentally friendly model centered on soil block making. “The founder had mentioned he was interested in setting up a business to create these bricks and sell them,” says Tiffany. Their hope is that by providing LoH with the equipment and engineering guidance necessary to start this small business, the organization not only will be able to financially sustain its programs but also provide a comprehensive youth employment opportunity. Making and selling these blocks are a way for vulnerable young adults to gain technical construction and business skills, while money earned can go towards paying school fees.

“Our experiences really integrated well together,” notes Dan. “Tiffany had already established a long term relationship with Light of Hope and my soils engineering background enabled us to understand the technical science of strength, stress distribution, consolidation, etc. behind making these blocks.” They spent their time in Lusaka interviewing the community youth to get a sense of their life stories and challenges they face, as well testing the soil...
to determine the soil properties, initiating a youth training program on the brick-making process, and establishing relationships with possible contractor clients. Additionally, they visited the Technology Development and Advisory Unit (TDAU) of the University of Zambia because it happened to be rolling out a new design of an interlocking stabilized soil block maker that is cheaper and more efficient in terms of required manpower and output.

From a technical standpoint, these particular bricks use very little water and cement, and no firewood during production, and when building with such blocks, mortar is not needed due to the interlocking design, resulting in a product that communities in developing countries can use to make and sell blocks, or build buildings to enrich their area. Corruption, however, is often cited as one of the major downfalls of such construction based projects, since building blocks of inferior quality would be cheaper but result in more unstable structures. In response, Tiffany and Dan are in the process of designing programs in conjunction with LoH workers and community leaders to educate the teens working in the soil block business on proper financial stewardship, management, business ethics and values. The two MIT students believe that instilling a desire to help others in the process of helping themselves will result in the development of important life skills, and they envision a business that will eventually become a support group for these youth.

This summer, Tiffany and Dan, whose project recently won a grant through the Park Street Church Social Change Competition, will both travel to Zambia to implement the next steps in their project. Their fieldwork will include receiving basic training on operation of the soil block making device from the TDAU, purchasing local materials, and testing various methods of mixing and curing the blocks to ensure feasibility and quality, while incorporating the educational youth component. Tiffany sums up their dedication to and investment in this project, noting that “these people really captured our hearts and this isn’t just about starting a business or learning the technical skills- it’s more about helping friends we care about.”