Universal Nut Sheller Solves Malawi Cholera Problem

Tim Strong is a Peace Corps Volunteer in the village of Chilombo. The village development team was very concerned about the high incidence of cholera in their village. The team was discussing the problem with Tim and asking if he could help them formulate some possible solutions. A well was their best hope, but how could they conceivably afford the cost of digging a well deep enough to reach clean water?

A couple of days later during a meeting with Brian Connors, the Peace Corps Assistant Country Director, Tim related the concerns of the villagers. Brian suggested that Tim take a Universal Nut Sheller back to his village to show the development team and to see if there might be a way to utilize the UNS to resolve the water problem. While Tim was demonstrating the UNS to the development team, a farmer from the area came by.

The farmer, seeing the UNS in action, asked if the villagers could shell some peanuts for him. They agreed on a price and he brought them 3 tons of peanuts. The village shelled them in three days! The farmer could not believe it and asked if they could shell 6 more tons. They said yes, and a week later the peanuts were shelled. Seeing the potential to perhaps make enough money to fund a new well, the villagers moved the UNS on a bike through the rivers to three other villages where they shelled another 21 tons of peanuts. The village raised enough money to pay for half the well and received a matching grant that covered the cost of the well. Clean water is a reality now for the village of Chilombo.

We recently returned from Mali. Full Belly was invited to help find a key ‘missing link’ in the jatropha biodiesel project of Mali Biocarburant – a Dutch NGO partnered with 87 farmers’ co-ops representing 1,025 farm families. What we got involved with was a project almost too good to be true.

Mali Biocarburant provides jatropha seedlings free to the farmers. These are planted in areas where the soil is too poor for food crops or even grazing. Jatropha has a 20-year root that makes it very drought resistant. After the food crops have been harvested in the fall, the farmers collect jatropha at their leisure. A truck is sent to each village with a high efficiency oil press on board, a filtering system and a tank. The oil is pressed in the village and the farmers are paid on the spot by the litre. As an added bonus, the waste solid material remains after pressing, the ‘jatropha cake’, is an excellent fertilizer. Farmers arrive with bags of whole nuts and leave with cash and sacks of fertilizer for their food crops.

Because the jatropha plant is quite poisonous to insects, the fertilizer is also a bio-pesticide for grubs, locusts and termites. The crude oil is brought back to the factory where it goes through a de-ester process to make it into top grade diesel fuel. The two big oil companies, Shell and Total, fight for the chance to buy it and mix it into their delivery chain. Last year, with the plants still small and yields low, 1 million litres of oil were sold and each farming family got an average of $200US in extra income, an income boost of about 50% and about $1 million stayed in the country. Mali Biocarburant expects this harvest to double those numbers and plans to set up 3 more factories in Mali. Next year they are expanding the business model to 4 neighboring African countries.

Save the Date - February 21, 2009
7th Annual Full Belly Fundraiser Coastline Convention Center

Ming’s Magic
High Tech creates Low Tech

Magic and excitement have been brewing all summer in the Full Belly workshop.

For nine weeks, Ming Leong, a rising MIT senior, served as an intern with Full Belly staffs, Jock Brandis & Jeff Rose. Ming worked her Magic by utilizing cutting edge technology to create and modify Full Belly-style simple low tech devices.

Ming is enrolled in MIT’s “D” Lab, a project design studio course under the auspices of Dr. Alison Hynd and MIT’s Edgerton Center. “D” Lab (Development, Design & Dissemination) students work on projects aimed at helping communities in the developing world. Several years ago course coordinator/ instructor Amy Smith recruited Jock as a mentor for students in the Lab. Students work on campus and also take their inventions straight into their clients’ communities for testing and refining, traveling anywhere in the world to work.

Recently FBP received a request from Brian Connors, Peace Corps Director in Mali, who coordinated the construction and distribution of the Universal Nut Sheller throughout his region. He asked Jock to...

Update from the Field - Mali Jatropha Project

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Volunteer Spotlight

Ming has taken many days off from her personal catering company to prepare the meals for our fundraisers. Other volunteers who have worked with Ming in her kitchen in Supply, as well as at the kitchen at the fundraisers, always say how much fun they have had working with Ming and how much they would like to volunteer with her again the following year.

And it’s not just the kitchen where Ming shines; she was also instrumental in introducing FBP to NC Women’s Club, which this year has adopted us as a project to support. She is a fantastic volunteer as well as a wonderful person with a huge heart. We are ever-thankful to have Ming as a Full Belly Volunteer!

Letter from the Executive Director

The Full Belly Project opened our doors and hearts to the UNC Chapel Hill APLES internship program for the first time, and I am pleased to say that all involved had an incredible experience. We had a wonderful group of girls who worked on a variety of tasks for us. One group developed an interactive map so we can make better educated decisions on where and why we would select our next ventures abroad.

The Interactive Map provides each board member with basic facts and figures on the world’s 20 poorest developing nations, as determined by the United Nations. It provides local crop figures for all the crops we currently work with. It also includes malnutrition rates that were provided at the regional level. All this information will be utilized by The FBP Board of Directors to plan future operations abroad.

We also had the good fortune of working with a Public Relations intern who obtained permission to use a song from the “Blood Diamond” soundtrack for promotional purposes. Keep a lookout for this powerful song on our website in the near future.

We have had a wonderful time hosting Ming Leong, our MIT Fellows student. Ming has worked all summer long on a new version of the Universal Nut Sheller. Read about her work in the article “Ming’s Magic.” She has been invaluable to the ongoing research and development aimed at improving our UNS.

All of these interns humble me with their energy and enthusiasm to help Full Belly continue to grow. I would like to take this opportunity to thank them for their dedication and hard work. It is greatly appreciated.

Jeff Rose