Health Initiative in the Brazilian Pantanal
Brazil
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Summary
In Summer 2012, Pantanal Partnership (PP) set out to construct a multipurpose water tower at the Pantanal Center for Education and Research (PCER) with internet capabilities to expand health coverage in the rural Brazilian Pantanal. Additionally, PP is spreading sustainable technologies developed at PCER, and this summer aimed to visit four rural schools in the Poconé municipality to run workshops on biosand water filters and the importance of clean drinking water.

Additional Funding Sources
In addition to the Davis Project for Peace Grant, this project was funded by a Wege Environmental Education Grant, the Focus Conservation Fund (a non-profit operating in Brazil with a similar mission to PCER), the UM College of Engineering Multidisciplinary Design Program, the Barger Leadership Institute, and an International Institute Fellowship Grant, and private donations to Pantanal Partnership.

On-Ground Operations
The Health Initiative has several components, some of which were achieved this summer and many of which we will continue to implement in the future. The two main activities this summer were the construction of the multipurpose tower at PCER, and workshops on biosand water filters (BSF) and at four local schools.

The multipurpose tower is serving as the groundwork for a health clinic at PCER, which will serve the surrounding community of approximately 300 inhabitants. The tower and connection to Brazil’s telecommunication-based healthcare network faced many unanticipated difficulties. The objectives for the summer included the following: construct 17’ concrete tower, install filtration system for water with high iron content, install two solar-powered water pumps and solar panel mounting system, connect the internet system, and establish relationships with Universidade Federal de Mato Grosso (UFMT). Of these objectives that last two were not achieved this summer. We were unable to obtain a signal from the internet system, and are currently in troubleshooting talks with E-MAGINE, the student organization that designed the system. Additionally, we were able to make only limited headway at UFMT as the healthcare system was on strike during the duration of our trip. Fortunately, we were able to form a partnership with IFMT (Instituto Federal de Educação Ciência e Tecnologia do Mato Grosso), a governmental organization with a mission to improve living standards in the Pantanal. There remains much to be done for the health clinic to open and action items for this year include recruiting medical students/professionals to our team, making the internet system viable, and working through IFMT’s on-ground presence to establish a relationship with UFMT.

The BSF workshops focused on the importance of clean water, and also the building, operating, and maintenance of BSFs. PP worked with the local Secretary of Education to establish relationships with schools in the area. The original goal was to have a team of six engineering students visit four schools in the span of a month. PP ended up working at two locations - an orphanage Nazaré with 52 boys and a private school Cotia with 48 girls. A recently opened school on the Cuiabá River had a last-minute cancellation of the workshops, and the other school is of great future interest as it was temporarily closed due to poor water sanitation. The Nazaré workshops we believe worked out well for several reasons. The orphanage’s administrators are very dedicated and were able to host our team on-site, which connected them with the students on a daily basis. Additionally, the site had soccer facilities that provided alternative means to bridge language gaps. Cotia did not have on-site lodging available, and thus was significantly more difficult to make the students feel comfortable and open up to our team.
We hope in the future to visit more of the thirty schools in the municipality. An unanticipated difficulty was the bureaucracy involved in running workshops at public schools, and we will get an earlier start on paperwork to make these locations feasible. Nazaré presented many future opportunities that fall outside of the Health Initiative but within PCER’s mission. In addition to the BSF workshops, we had workshops on playing the violin and a basic course on First Aid & CPR. In Summer 2013, we plan to operate similar workshops and host a study abroad group for an English immersion program, as English is considered to be a very valuable skill in the local tourist-based economy.

**Peace**

On the global level, peace means no war. On the national level, peace also means no war, but is extended to provision of basic social services including but not limited to education, healthcare, and a clean environment. On the community level, peace gives every member the ability to interact freely with others and pursue their happiness and prosperity without interference. And on the personal level, peace is being able to sleep with a clean conscience. Peace is a dangerous beast because all levels of peace are mutually dependent on the others; what one individual experience depends on nearly seven billion other variables.

PCER’s mission is to provide a space for the local community and international researchers to collaborate on preserving the Pantanal, the world’s largest most biodiverse wetland. PCER, when it is fully operational, will contain a public school and health clinic to expand basic social services to the Pantanal, and a field station to provide common space for research from biology to sustainable technology. Historically, families in the Pantanal have subsisted on traditional ranching and fishing; however as intensive cattle farms and sport/tourism fishing have exerted greater influence on the area, peaceful existence in the Pantanal is threatened. Ensuring that families in the Pantanal have access to basic social services such as education, healthcare, and telecommunications will enable the local community to be researchers’ most vested collaborators on preserving the wetland.

After witnessing the state of healthcare in the Pantanal in Summer 2012, it became a new focus of ours. Families currently count on three medical boats that come for one week sporadically throughout the year, and there is no form of telecommunication in the case of emergencies. Curable sicknesses turn into life-threatening situations because there is no reliable means of transportation or communication to reach healthcare professionals. Establishing a telecommunications-based health clinic at PCER will serve as a hub for the community to access the expertise and resources already available through Brazil’s socialized healthcare system.

We have also expanded our activities outside of PCER to running workshops and educational programs on sustainable technology, music, and in the future English at local schools, orphanages, and non-profit organizations. Through these activities, we hope to provide opportunities to students with fewer resources, and to teach skills that will expose them to nature and new cultures, and instill in them curiosity of the world around them. We believe that this curiosity is the most powerful tool for individuals to recognize and achieve their aspirations.

This project continues to prove to me that the world’s challenges cannot be oversimplified, and that patience and perseverance are required to find solutions. It has increased my interest in rural exodus, and how countrysides and cities must adapt to changing population dynamics; and measures that can be taken to improve both rural and urban standards of living.

From my work in Brazil, I believe that the environment cannot be prioritized over communities in areas of conservation. Basic healthcare is vital to peaceful existence, and with it the local community of the Pantanal can become the best advocates for preserving their wetland.