

Xxxxx Xxxxxx

Currently International Relations Major

PATA Grant Application

February 20, 2019

Latrines for Parque Colani, Bolivia

Team Members:

Xxxxx Xxxxxx, Xxxxx Xxxxxx, Xxxxx Xxxxxx

Project summary:

This summer, I will travel to Parque Colani in Bolivia with a group of UC Davis students who are members of Engineers Without Borders (EWB). We are working to improve sanitation by building a pilot project of nine sustainable latrines. Our implementation of latrines can eliminate open defecation, encourage good hygiene, and provide community members from Parque Colani with the necessary knowledge to use and maintain the latrines. The designs will alleviate inequality because many families will be granted access to a basic human necessity, toilets. I will also address inequality by spending a few days in the local school. I hope to inspire the children through our work, and encourage them to pursue higher education. The project will distinctly impact every resident. Eight residents who do not currently own a functioning latrine will have one built for them, while the last latrine is to be built in the community center, having access to an efficient and sustainable latrine will help not only the current residents but the generations that follow ultimately strengthening the future of this developing town.

Faculty

Xxxxx Xxxxxx

Partnering Organization

Organization Name: Fundación de Ingenieros en Acción/Engineers in Action

Contact Person: Xxxxx Xxxxxx

Contact Email: xxxxxx@xxxxx.org

Contact Phone (through US based phone): XXX-XXX-XXXX

Partnering Organization Summary: Engineers in Action (EIA) is dedicated to improving the health and wellbeing of vulnerable communities in Latin America. They work in partnership with local communities to increase access to water and infrastructure, building their capacity and resilience, common program types include: water, sanitation, bridges & structures, playgrounds

And community improvement. This helps ensure the long term sustainability of the new systems.

Resume

Attached to online application

Partnering organization

Attached to online application

Letter of Recommendation

Sent by Xxxxx Xxxxxx directly to the BLUM Center

Grant Proposal:

This summer, my UC Davis Engineers Without Borders team and I will build latrine that has been designed specifically to fit the residents of Parque Colani's needs. Parque Colani is a community located in the Northern highlands of rural Bolivia, which is approximately four hours away from the capital, La Paz. Despite their relatively close location to the government, the community lacks basic human needs such as sanitary facilities. This shortage has led to significant health hazards within the community, such as open defecation and illnesses, both of which are easily preventable with better hygiene options.

In a short term scale, if Parque Colani's residents are satisfied with the final product (nine latrines), then it may encourage them to *use* the facilities, thereby causing a decrease in uncomfortable situations that include: digging holes to put waste in, and "peeing" on bushes or even walking far distances to reach a functioning latrine. In a long term scale, the reduction in the occurrence of open defecation will alleviate the risk of waste seeping through the soil to the fields used for farming and spreading vector-borne illnesses. According to the Elizabeth Royte

from the National Geographic, flies that feed on human excreta are the most common transport of infectious intestines that fail to accept vaccines, nutrients and in women, are the reason for underweight babies. They can contaminate us through cuts in our skin or by simply contaminating our water that is why it is important for children and poorer communities to have access to a facility for waste. In summary, the implementation trip my team will complete this summer will alleviate long-term health hazards, which contribute to income inequality.

Another important intervention we will conduct is addressing health risks via improved hygiene. Last summer when the project team completed their first trip, they found that many community members did not find it important to wash their hands regularly, including after using the restroom. The more surprising discovery was that all people, including the children in school, were already aware that their practices could lead to disease and sickness. I understand that in order to keep this town and its people alive and healthy, utilizing water and/or disinfectants to cleanse their hands needs to be emphasized. As a result, I have suggested using new methods such as slogans and memes to bring awareness to the benefits of good hygiene. Although this town may be traditional, a slogan or a funny picture with a clever caption will at least start up a conversation and ideally increase awareness. The effort would be highly beneficial because my team can't teach someone what they already know, but we can definitely try reminding them why it matters. With all this in mind, the campaigning plans will reduce poverty by helping all residents -- men, women and children -- to remain healthy.

We intend for this project to benefit all inhabitants. The older generation will get to first hand see their towns' evolution. They also get to feel relieved that their children will not have to live under the harsh conditions that they had to live through. On the other hand, children will have new access to a functioning building in which to deposit waste. This newly constructed facility is a result of a town's desire to modernize, and a step towards poverty alleviation. Even

though sustainable latrines are only a small step to alleviating extreme poverty, it is a step forward that the community has taken together. It demonstrates the community's ability to work together to take a risk by trusting foreign individuals to provide them with the best solution. Their honesty and willingness to communicate has shown my team the unity felt by the community in this matter.

An indirect effect of our intervention is the influence my team can have on children's willingness to continue their education. During our six week implementation trip, my team is scheduled for numerous visits to the local school where we will give presentations on an educational topic. Being fluent in Spanish myself, I can communicate with them in a local language and encourage them to continue their education. I would like to share with them that it is through my university that I was allowed to visit their community and positively impact their town. I do understand they are currently at a disadvantage simply by living in a country with a developing economy, but hopefully their willingness to persevere against the disadvantage they currently face could alleviate poverty for their families and future families.

In order to ensure all of our work is properly used to minimize future problems, my team and I have researched latrines that have worked for communities with similar demographics and have consulted with multiple contacts on which design would best suit Parque Colani. These contacts include professional engineers and leaders of the Bolivian-led sanitation council we convened last year. The professional engineers have provided help by guiding my team on the feasibility of our designs with only materials that can be locally found. Using local materials is crucial to the project's success because it ensures the latrines can be maintained long after our departure. Upon running into issues, the community will not need to rely on parts that must be shipped from across the world, but from materials within their region. The sanitation committee also provides input from community members. This input is essential because it helps my team

create a design that will have taken the community’s opinion into account. While we can research and consult, they have local knowledge of the type of latrine that would best fit their needs. In sum, our extensive outreach, which takes into account local materials and the community’s opinion, will facilitate the success of our project.

As Administration Lead of my UC Davis Engineers Without Borders team, I will be responsible for creating a timely schedule and agenda. There will be daily/weekly agendas with detailed tasks for the six team members as well as overall team tasks. During the past two quarters, I have managed the team newsletters, and kept members informed of updates and changes in our project. An organized person like myself will serve to keep the project on time and focused. When the the construction of the latrines has been completed and it is time for our departure, I will keep in contact with community leaders via phone, as the community lacks internet. The team’s departure in the summer of 2019 will therefore not be the last time my team connects with Parque Colani. In fact, we will return the following summer to develop more latrines, and continue the interventions we have begun.

Budget

Description	Price per Unit	Unit	Total	Notes
Travel				
Flight	\$1,500	1	\$1,500.00	Estimate of round trip flight from SFO to LAP
Visa	\$160	1	\$160.00	
Local Transportation	\$6	42/day	\$252.00	Travel from airport, travel within community. Includes driver and car
Lodging				
Hostel	\$30	2	\$60.00	Other living arrangements will be organized by community
Personal				
Medical	\$50	1	\$50.00	Yellow Fever Vaccination, Altitude Medication, other. Variable with Insurance provider
		Total	\$2,022.00	

Time frame for Project Completion

Activity	Date
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1. Preparation (immunization, visa)	completed
2. Arrive in La Paz, Bolivia via plane. Arrive in Parque Colani, Bolivia via van	Aug 5, 2019
3. Coordinate with community leaders, orientation w/workers, gather materials for construction	Aug 6- 10
4. Begin digging pits for 3 latrines, 1st trip to school	Aug 12-17
5. Finish last weeks latrines, start pits for 3 more	Aug 19-24
6. Finish last weeks latrines, begin 2 more, meeting with sanitation council, 2nd trip to school	Aug 26-31
7. Finish remaining latrines, meeting with owners of latrines to educate on maintenance	September 2-7
8. Organize project closure event, third trip to school	September 8
9. Depart to La Paz via van	September 9
10. Submit expense report	September 14
11. Complete fields report	By November 14, 2019