

2015 APPLICATION

Your Project Title: Kameshwaram Sanitation Campaign

1. Your Information:

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ID #:

Degree being sought at UC Davis: B.S. Applied Statistics and Cell Biology

Program and Concentration (with expected completion dates): Expected graduation- Winter 2016

**2. Project Abstract (maximum of 200 words):** What do you plan on doing in the field? How do you think this will help reduce poverty or inequity in the area you are working? Who will this project impact? How will it impact them? What organizations/communities will be benefiting from your project?

I will be working with my organization, Project RISHI, in partnership with a local organization in India, FIN (Friend in Need), to promote better practices with regards to sanitation and disease in a rural village. Through our work with FIN, it has come to my attention that the population of Kameshwaram, Tamil Nadu faces persistent hygiene and toilet accessibility issues. Although the sanitation infrastructure is growing as part of FIN-SWAM's toilet installation efforts, the use of such facilities has not met its full potential and much of the previous infrastructure was ravaged by the tsunami of 2004. We aim to provide sanitation education and public health promotion that can cause measurable behavioral change. Our sanitation campaign will be targeted at women and children, and the materials we develop will address both social, health, and sustainability needs.



**3.** Anticipated Results and Outcomes (maximum of 1200 words): What do you think the benefits of your work will be? Who specifically do you think will benefit? How will you know?

From a 2012 demographic survey conducted by FIN-SWAM ("Kameshwaram Survey of a 1005 Households"), the existing sewage infrastructure of Kameshwaram consists of 402 households with no toilet, 377 households with septic tank toilets, and 226 households with eco-san toilets. From the same demographic survey, it was found that out of the 1005 households surveyed, 730 found that the septic tank toilets were easier to use than eco-san and open pit. Septic tank toilets pose a considerable environmental concern as pollutants and waste could contaminate groundwater and require significant operating and maintaining costs. Thus, eco-san toilets are a financial and ecological solution to waste management in developing areas, and this idea is also well understood by the population in Kameshwaram as per the survey results. The low usage of the eco-san toilets can be correlated with its perceived low ease of use as well as a general lack of awareness on proper sanitation and hygienic practices. Furthermore, the study reveals that in the need of toilet repair or maintenance, the top response was waiting for an NGO to fix the issue. Thus, there requires a full fledged program that markets the eco-san toilets and makes the villagers accountable for the toilets' function to ensure the toilets' sustainability.

As FIN and other organizations continue with providing access to working toilets, the levels of open defecation have not decreased substantially due to ingrained social practices and attitudes. In order to supplement the construction efforts, widespread sanitation campaigns can bridge the gap between facility and accessibility, thus increasing the usage of toilets and motivating village households to promote toilets amongst themselves. Project RISHI at UC Davis hopes to implement a campaign in this manner. We will focus on improving awareness about better hygiene and sanitation practices to ensure that preventable diseases stemming from poor waste management can be eliminated.

Our approach will take into account the local needs of the villagers, so we will consider the specific types of behavior that are in need of change, the magnitude of the current problem, level of awareness present in the community beforehand, and the environment in which the toilets are being put in. A significant portion of our resources will be allocated toward promoting hygiene and sanitation education to younger children and students. Targeting the younger demographic has proved to be crucial in ensuring the village's use of any sanitation infrastructure, and experience from other organizations such as SCOPE has shown that a "convinced child is a committed advocate." Education and health promotion in schools will affect the greater community as well since children influence the behaviors of their families.

We will also be utilizing principles derived from the PHAST approach (Participatory Hygiene and Sanitation Transformation), advocated by the World Health



Organization, which provides effective methods to influence change and work with local community. A core facet of this approach is teaching a fundamental understanding of the connection between behavior and illness. We will be providing avenues in which people can trace the fecal-oral route of disease transmission in their current sanitation setups and showing the benefits that an alternative solution, such as Ecosan, can offer them. This participatory approach will be aided by examples showing improvements in areas both in India and abroad. This concept-based learning will be a much more powerful tool than simply distributing the message since the understanding will come from the people's own desires to improve their lives by changing sanitation behavior.

Commercial marketing strategies are also an important aspect of the plan. Since our team we will not be present in India for much of the year, it is important to have measures in place that can continue to promote good sanitation and hygiene behavior throughout the year. These include localized television advertisements, radio spots that showcase the Ecosan, as well as physical material such as billboards and newspaper pages. A marketing strategy will also focus on the non-health benefits of owning a toilet including privacy, dignity, convenience, safety, prestige, and cost-savings from the decrease in recurring health problems. These strategies will allow us to provide a uniquely targeted approach that bridges the gap between awareness and usage of proper sanitation methods.

Through implementing a campaign consisting of a sanitation education component, marketing the EcoSan toilets as a viable solution, and creating a process by which villagers feel invested in their sanitation infrastructure, we aim to increase the population that uses eco san toilets and eventually decrease the rates of diarrhea and other sanitation linked diseases. Measuring the impact of such a campaign will involve comparing the usage of eco-san toilets before and after the campaign, the prevalence of open defectaion before and after the campaign, and the incidence of diarrheal disease before and after the campaign at several stages (6 months, 1 year, 2 years, and 4 years). Furthermore, the overall sustainability of the eco-san toilets can be considered when measuring the ease of accessibility and knowledge of maintenance procedures.

**4. Estimated Budget** (project grants will be issued for funding up to \$2,000 and likely will not cover all of your trip costs. Any costs incurred above and beyond the grant limit of \$2,000 will not be covered). Provide a brief itemized budget. Note: Grant funds can cover such items as airfare, transportation, and lodging. Not all of these items need to be included in your estimate if they don't apply or you don't need funds for them. **ALSO NOTE: TUITION AND SCHOOL FEES, PERSONAL ITEMS, FOOD AND BEVERAGES ARE NOT ACCEPTABLE BUDGET ITEMS.** FUNDS MAY ALSO NOT BE USED TO COVER UC DAVIS TRAVEL ABROAD or EDUCATION ABROAD PROGRAMS: