

**Colorado College**

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**Background**

It is currently estimated that one-half of all the hospital beds in the world are occupied by individuals suffering from water-borne illnesses. The majority of these people are children in developing nations. Approximately one billion people lack access to clean drinking water. Over two million deaths per year are the result of water-borne illnesses. Between morbidity and mortality, untreated water has major implications for every part of the lives of those affected.

Numerous solutions do exist; we have been most drawn to the simple elegance of a program known as SODIS ([www.sodis.ch](http://www.sodis.ch)). SODIS, or Solar Water Disinfection, is a process that reuses plastic bottles to provide a means of water purification at the household level. By simply leaving a filled bottle in the sun for a day, almost all water-borne pathogens are inactivated-- even in the most contaminated water. Reductions cases of diarrhea are astounding-- as high as ninety percent in some cases. Although targeting the household level is labor intensive, SODIS is one of the most sustainable clean water technologies that exists today. The program has been implemented across the globe; Ecuador is one place that this program has already been used with great success. In a program undertaken by the SODIS foundation, seventy percent of the people in Ecuador trained with the SODIS method adopted it as their primary means of water purification. The region of Santo Domingo de Los Colorados is one area that the SODIS method of purification has been implemented with great success but limited scope. The greatest needs in order to increase this scope are manpower and funding. These needs will be fulfilled exactly by the opportunity provided by the Projects for Peace program.

**Project Proposal**

In the beginning of June, we will travel to Santo Domingo de Los Colorados, Ecuador and meet with members of the SODIS foundation. Our goals there will be twofold: 1) Build on existing knowledge and infrastructure to facilitate the expansion of the current SODIS program in the area 2) Reinforce the existing program by providing materials, funding, and labor. Because the SODIS program is a labor-intensive one, we expect that we will need to spend approximately six weeks to make a viable impact and sufficiently educate community leaders and schools to enable the program to sustain itself. By building on an existing project, we hope to achieve much more than if we were to undertake such a project without prior experience. Using existing infrastructure will also increase the longevity of the program--locals already informed in proper SODIS usage techniques will be able to check-up on newly trained users. The existing program in the region has effectively reached around 2,000 people on a slightly larger budget. This project is a highly adaptable one that will give us a working knowledge of international aid basics while providing a source of potable water to an estimated 1,500 people.

## **Estimated Budget**

<b>Travel Expenses</b> (flights and travel in country)	<b>\$1,800</b>
<b>Living Expenses</b> (food and lodging)	<b>\$1,200</b>
<b>Project Funding</b> (includes: bottle collection, materials printing, training, and long-term project maintenance)	<b>\$7,000</b>