

Sodis Ecuador
Ecuador
The Colorado College
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Section I:

We developed this project to augment the existing water sanitation and hygiene program in rural Ecuador. We followed the SODIS Foundation's model, which promotes simple solar water disinfection combined with basic hygiene and general sanitation.

We carried out our project over the course of seven weeks on the northern coast of Ecuador. Using the project implementation guidelines from previous SODIS projects in Ecuador, we helped to start a new branch of this project in the county of Atacames. During this time period we visited 32 rural and 3 semi-urban communities and an estimated 3,500 people. We were able to return to approximately one-third of the communities and answer questions or concerns they were having with the water purification method; half of those revisited were using the method correctly. We were also able to provide materials and coordinate logistics for one community to install a latrine and a well.

We were able to share a sustainable method of solar water purification with over 30 rural communities and about 3,500 people in Ecuador. By using the principles developed by SODIS, we communicated the method for water purification and general health principles to village leaders and teachers, many of whom adopted the technique successfully.

Section II:

Originally, we had planned to expand the existing SODIS program in Santo Domingo de los Colorados. Upon arrival in the capital, Quito, we discovered that the project in Santo Domingo had already been completed and that the SODIS Foundation was planning a new project on the northern coast of Ecuador. We decided we would be of most use helping to start the Coastal program. We arranged a few days of intensive training in the methods of SODIS and further Spanish lessons, during which we learned that the SODIS program is much more comprehensive than simply providing a sustainable, safe means of water purification.

Solar water disinfection uses empty soda bottles (as large as three liters) and sunlight to decontaminate non-potable water. In sunny weather, bottles need only six hours of sunlight exposure; in complete cloud cover, two days are recommended. After simple exposure to sunlight, the water is completely potable and safe for consumption. Water purification is the backbone of this method, but equally significant are basic hygiene and sanitation. Using a comprehensive SODIS model, water-borne illness incidence can be reduced by 75 percent.

Once on the coast, we coordinated with the local municipality in the county of Atacames. We trained and worked with a team of five municipal employees with whom we visited each village in the county. We set out to visit each community three times. In the first visits we offered to return and teach the method and encouraged the teacher to inform other members of the community about the meeting. The second visit we presented the method and basic health principles in local schoolhouses. We explained the importance of cleanliness and the concept of germs through a SODIS movie made specifically for Ecuador, used a poster to further clarify the steps of SODIS, and used a student-volunteer to demonstrate effective hand washing. We distributed soap and hand towels to each grade of each school we visited, as well as to many families who were represented in our meetings. In the third visit we returned to the schools to see if they were using SODIS properly or at all. For those who were not using SODIS properly, we helped clarify how to use the method. At schools that were not using the method, we answered their concerns and often found that details of the method had been confusing or misunderstood; many of these schools were found to be using the method in subsequent days. We realized early that locally (village-level) spread information would be more readily accepted and long-lasting. This led us to prioritize the role of local teachers and community presidents. In communities where teachers were using the method, members of the community readily adopted it.

We visited one remote community that was only accessible by horseback. This community had long needed a latrine and a well. We explained SODIS and also were able to coordinate the expertise of

an engineer from the municipality with the needs of the community to purchase and layout a well, pump, and tank system and a latrine. The community was excited to have a latrine near the schoolhouse and to finally have an improved source of water. We believe that this will be a great asset to the health of the community.

The marked health differences realized by the application of this program will be the driving factor for its long-term impact. In communities where a few residents had adopted the method, acceptance was high among other residents. This effect combined with the fact that we coordinated with one governmental (MIDUVI) and one non-governmental (SODIS Foundation) organization will greatly increase the longevity of this project – not only do residents reap health benefits, but two separate organizations will devote resources and time to the maintenance of the program. Also in terms of sustainability, our project culminated with a meeting with the mayor who was very supportive of the program. Contrarily, many individuals seemed to doubt that the mayor would carry on with a program that would not increase revenues. Although this project would have ideally spanned a year, a solid framework for SODIS is in place and will at least continue if not grow in the future. Because SODIS is information-based, there should be no technical or resource issues in the future.

We learned that communication on every level is an especially important and difficult aspect of an internationally coordinated aid project. If we were to start over knowing what we now know, communication among governmental, non-governmental and local organizations would be our top priority. We would also make a pointed effort to further concentrate training efforts on local schoolteachers. The importance of persistence and repeat visits was made clear in the fact that we gained more trust and credibility with each visit to a community. Building trust seems the only way to make a lasting impact and only with time will that be accomplished. Because information is much more accepted and trusted when it comes from a local source, we would highly prioritize the involvement of community schoolteachers. We found that even with two months, our biggest restriction was time.

We would both like to extend our heartfelt gratitude to Kathryn Davis for enabling us to undertake this project.

Budget

Travel Expenses

Air travel

Two Roundtrip Tickets (\$717.50 each)

Subtotal.....\$1,435

Ground transportation

Community Visits (\$250)

Public Transportation (\$360)

Subtotal.....\$610

Living Expenses

Food.....\$1,275

Lodging (50 nights at \$15.15 per night per person)

Subtotal..... \$1,515

SODIS Materials

Promotion materials

Murals (\$500)

Computer/ projector for program (\$1,400)

SODIS brochures (4,000 at \$.15 each)

Subtotal.....\$2,500

Latrine/well materials.....\$1,000

Soap, towels, other meeting materials.....\$1,500

